```
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LOGINID:ssspta1756mja
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                      Welcome to STN International
                  Web Page URLs for STN Seminar Schedule - N. America
 NEWS
      1
                  "Ask CAS" for self-help around the clock
 NEWS
      2
 NEWS 3 DEC 05 CASREACT(R) - Over 10 million reactions available
 NEWS 4 DEC 14 2006 MeSH terms loaded in MEDLINE/LMEDLINE
 NEWS 5 DEC 14 2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER
 NEWS 6 DEC 14
                 CA/CAplus to be enhanced with updated IPC codes
 NEWS 7 DEC 21
                 IPC search and display fields enhanced in CA/CAplus with the
                  IPC reform
 NEWS 8 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/
                  USPAT2
 NEWS 9 JAN 13
                 IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
 NEWS 10 JAN 13
                 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to
                  INPADOC
 NEWS 11 JAN 17
                 Pre-1988 INPI data added to MARPAT
 NEWS 12 JAN 17
                 IPC 8 in the WPI family of databases including WPIFV
 NEWS 13 JAN 30 Saved answer limit increased
 NEWS 14 JAN 31 Monthly current-awareness alert (SDI) frequency
                  added to TULSA
 NEWS EXPRESS
              JANUARY 03 CURRENT VERSION FOR WINDOWS IS V8.01,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
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               CAS World Wide Web Site (general information)
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COST IN U.S. DOLLARS
                                                     ENTRY
                                                               SESSION
FULL ESTIMATED COST
                                                      0.21
                                                                 0.21
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                         30 JAN 2006 HIGHEST RN 873057-98-8
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* the IDE default display format and the ED field has been added,
* effective March 20, 2005. A new display format, IDERL, is now
* available and contains the CA role and document type information.
Structure search iteration limits have been increased. See HELP SLIMITS
for details.
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predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
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http://www.cas.org/ONLINE/UG/regprops.html
=> s ex-841
         2241 EX
         3145 841
            6 EX-841
                (EX(W)841)
=> d all
    ANSWER 1 OF 6 REGISTRY COPYRIGHT 2006 ACS on STN
L1
    361181-83-1 REGISTRY
RN
    Entered STN: 09 Oct 2001
ED
    2-Propenoic acid, 2-hydroxyethyl ester, polymer with 5-isocyanato-1-
     (isocyanatomethyl)-1,3,3-trimethylcyclohexane and .alpha.-(oxiranylmethyl)-
     .omega.-(oxiranylmethoxy)poly(oxy-1,2-ethanediyl) homopolymer 2-propenoate
     (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, polymer
    with 2-hydroxyethyl 2-propenoate and .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy)poly(oxy-1,2-ethanediyl) homopolymer 2-propenoate (9CI)
CN
    Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy) -, homopolymer, 2-propenoate, polymer with 2-hydroxyethyl
     2-propenoate and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-
    trimethylcyclohexane (9CI)
OTHER NAMES:
      ***Denacol EX 841 acrylate-2-hydroxyethyl acrylate-isophorone***
CN
         diisocyanate copolymer***
     (C12 H18 N2 O2 . C5 H8 O3 . C3 H4 O2 . x ((C2 H4 O)n C6 H10 O3)x)x
MF
CI
PCT
    Epoxy resin, Polyacrylic, Polyether, Polyother
SR
    CA
LC
    STN Files:
                 CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
       (Properties); USES (Uses)
Ring System Data
Elemental | Elemental | Size of | Ring System |
                                           Ring
         |Sequence | the Rings |
                              Formula
                                        Identifier Occurrence
Analysis
            ES
                      sz
                                 RF
                                           RID
                                                  Count
   EA
______+
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C6
         C6
                              C6
                                           46.150.1
                                                      1 in CM
C20
          OC2
                              C20
                                           1.30.1
                                                       2 in CM
                                                      5
     CM
     CRN
          4098-71-9
         C12 H18 N2 O2
     CMF
/ Structure 1 in file .gra /
     CM
          2
     CRN
         818-61-1
     CMF
         C5 H8 O3
/ Structure 2 in file .gra /
     CM
          3
          104220-34-0
     CRN
         C3 H4 O2 . x ((C2 H4 O)n C6 H10 O3)x
          CM
               4
          CRN 79-10-7
          CMF C3 H4 O2
/ Structure 3 in file .gra /
          CM
               5
               58782-18-6
          CRN
               ((C2 H4 O)n C6 H10 O3)x
          CMF
          CCI
               PMS
               CM
                    6
               CRN
                    26403-72-5
                    (C2 H4 O)n C6 H10 O3
               CMF
               CCI
                    PMS
/ Structure 4 in file .gra /
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE 1
AN
     Manufacture of polyurethane granules for immobilization of enzymes and
TI
     microorganisms
     Yoshitake, Junya; Seko, Kenji
IN
     Kansai Paint Co., Ltd., Japan
PΑ
     Jpn. Kokai Tokkyo Koho, 8 pp.
so
     CODEN: JKXXAF
DT
     Patent
LΑ
     Japanese
     ICM C12N011-08
IC
     7-7 (Enzymes)
     Section cross-reference(s): 16, 38
FAN.CNT 1
                                            APPLICATION NO. DATE
     PATENT NO.
                      KIND DATE
```

JP 2000-70372 PI JP 2001252073 A2 200 PRAI JP 2000-70372 20000314 20010918 20000314 The granules are manufd. by dropping aq. liq. compns. contq. (a) hydrophilic polyurethanes having .gtoreq.2 ethylenically unsatd. bonds (prepd. by reaction of polyisocyanates with addn. products from diepoxides and ethylenically unsatd. carboxylic acids), (b) polymn. initiators, and (c) water-sol. polysaccharides capable of forming gels with alkali metal ions or polyvalent metal ions on aq. media contg. alkali metal ions or polyvalent metal ions and photochem. or thermally polymg. the resulting granular gels for curing of the hydrophilic polyurethanes. Denacol EX 821 (diepoxide) was treated with acrylic acid in the presence of hydroquinone and then with isophorone diisocyanate to give a hydrophilic polyurethane, which was mixed with benzoin Bu ether, Na alginate, and H2O and UV-irradiated to give granules showing compressive strength 37 kg/cm2 and good adhesion of Zymomonas mobilis. enzyme microorganism immobilization polyurethane granule manuf; epoxide ST acrylate polyurethane polysaccharide microorganism immobilization; alginate gel granule polyurethane immobilization enzyme microorganism Polyurethanes, biological studies IT RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (acrylic-polyester-polyoxyalkylene-; manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) Polyoxyalkylenes, biological studies IT RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (acrylic-polyester-polyurethane-; manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) Polyesters, biological studies IT RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (acrylic-polyoxyalkylene-polyurethane-; manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) ITImmobilization, biochemical Microorganism Zymomonas mobilis (manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) Polysaccharides, biological studies RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses) (manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) Enzymes, uses RL: CAT (Catalyst use); USES (Uses) (manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) Polymerization catalysts (photopolymn.; manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) Polyurethanes, biological studies RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (polyoxyalkylene-, acrylic; manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) Polymerization catalysts (redox, thermal; manuf. of hydrophilic polyurethane granules contg. gel-forming polysaccharides for immobilization of enzymes and microorganisms) 9005-38-3, Sodium alginate RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses) (manuf. of hydrophilic polyurethane granules contg. gel-forming

polysaccharides for immobilization of enzymes and microorganisms)

361181-85-3P RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic

361181-83-1P

361181-82-0P

```
(manuf. of hydrophilic polyurethane granules contg. gel-forming
       polysaccharides for immobilization of enzymes and microorganisms)
IT
     7631-90-5, Sodium hydrogen sulfite 7727-54-0 22499-11-2, Benzoin butyl
     RL: CAT (Catalyst use); USES (Uses)
        (polymn. initiator; manuf. of hydrophilic polyurethane granules contg.
       gel-forming polysaccharides for immobilization of enzymes and
       microorganisms)
=> d all 2-6
     ANSWER 2 OF 6 REGISTRY COPYRIGHT 2006 ACS on STN
1.1
RN
     218956-63-9 REGISTRY
     Entered STN: 04 Feb 1999
ED
CN
     2-Propenoic acid, 2-methyl-, polymer with 2-methyl-2-[(1-oxo-2-
     propenyl)amino]-1-propanesulfonic acid and .alpha.-(oxiranylmethyl)-
     .omega.-(oxiranylmethoxy)poly(oxy-1,2-ethanediyl), sodium salt (9CI)
                                                                         (CA
     INDEX NAME)
OTHER CA INDEX NAMES:
     1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer
     with 2-methyl-2-propenoic acid and .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy)poly(oxy-1,2-ethanediyl), sodium salt (9CI)
    Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-
CN
     (oxiranylmethoxy) -, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-
     propanesulfonic acid and 2-methyl-2-propenoic acid, sodium salt (9CI)
OTHER NAMES:
      ***Denacol EX-841-methacrylic acid-2-acrylamido-2-methylpropanesulfonic***
CN
         acid copolymer sodium salt ***
MF
     (C7 H13 N O4 S . C4 H6 O2 . (C2 H4 O)n C6 H10 O3)x . x Na
    Epoxy resin, Polyacrylic, Polyether
    CA
LC
    STN Files:
                 CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
      Roles from patents: PREP (Preparation)
Ring System Data
Elemental | Elemental | Size of | Ring System |
                                            Ring
                                                      RID
                                         Identifier Occurrence
Analysis |Sequence |the Rings|
                               Formula
                                 RF
                                                Count
   EΑ
        ES
                  SZ
                                           RID
        OC2
                  | 3
                            C20
                                                   2 in CM
C20
                                                   2
     CM
         137323-93-4
          (C7 H13 N O4 S . C4 H6 O2 . (C2 H4 O)n C6 H10 O3)x
     CMF
     CCI
         PMS
         CM
              2
         CRN
              26403-72-5
              (C2 H4 O)n C6 H10 O3
         CMF
         CCI
             PMS
/ Structure 5 in file .gra /
         CM
              3
         CRN 15214-89-8
          CMF C7 H13 N O4 S
/ Structure 6 in file .gra /
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preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

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CM
```

CRN 79-41-4 CMF C4 H6 O2

/ Structure 7 in file .gra /

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 130:99461 CA TI Additives for hydraulic compositions, preparation of the additives, and cement compositions containing the additives IN

Tahara, Hideyuki; Ito, Hiroshi; Mori, Yasuhiro; Mizushima, Makoto

PA Nippon Shokubai Kagaku Kogyo Co, Ltd., Japan

U.S., 47 pp., Cont. of U.S. Ser. No. 498,704, abandoned. SO

CODEN: USXXAM

DT Patent

English LΑ

ICM C08K003-00 IC

> C04B028-00; C08F220-00 ICS

NCL 524005000

58-2 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

FAN. CNI 2									
	PATENT NO.		DATE	APPLICATION NO.	DATE				
ΡI	US 5854318	Α	19981229	US 1996-759435	19961205				
	US 5476885	Α	19951219	US 1991-668513	19910325				
PRAI	JP 1989-190656	19890725							
	JP 1989-262242	19891	.009						
	JP 1989-297455	19891	117						
	US 1991-668513	19910325							
	US 1995-498704	19950	703						
	JP 1998-228313	19980	905						
	JP 1989-228313	19890	905						
	WO 1990-JP946	19900	723						

The hydraulic compns. comprise a hydraulic material, water, and an AΒ additive comprising a crosslinked polymer in which, between main chains having water-sol. polymer structure of wt.-av. mol. wt. 500-100,000, a bond having as a structural unit .gtoreq.1 divalent groups having general formula R1CO2R2 [independently, R1, R2 is selected from CH2, CH(R) p-Ph, CR(R1), and CH2CH(OH), with the proviso that R1 is not required if R2 is CH2CH(OH) (independently, R, R1 = C1-5-alkyl)], and in which the main chains comprise .gtoreq.1 members selected from CO2M, CO2(R5O)mSO3M, CONHR7SO3M, (CH2) nSO3M, and p-Ph-SO3M (m = 0 or integral no. of 1-50; n = 00 or 1; M is .qtoreq.1 selected from H, mono-, di-, or trivalent metal, NH4, and org. amine; independently, R1, R6 = C2-4-alkylene; R7 = C1-5-alkylene; with the proviso that when m .gtoreq.2, many of R50 may be the same or different, and, when many of R5O are different from one another, their arrangement may be regular or irregular), and in which the crosslinked polymer is capable of forming a water-sol. polymer by cleavage of the divalent group in an alk. medium. The additive are prepd. by obtaining a crosslinked polymer by a polymg. a monomer contg. .gtoreq.2 polymerizable double bonds and has as structural unit .gtoreq.1 divalent groups as above, with a monomer having one polymerizable double bond capable of copolymg. with the double bonds and capable to form a main chain structure capable of leading to a water-sol. polymer as above. a reactor, contq. N-stirred boiling water 164.2 were introduced a soln. contq. NK-ester M-9G (methoxypolyethylene glycol monomethacrylate; av. added ethylene oxide mole no. is 9) 62.9, methacrylic acid 16.7, and water 125.5, and, in addn., 2.5% aq. (NH4)S208 soln. 24.6 wt. parts over 4 h. Then, 6.1 wt. parts 2.5% aq. (NH4)S208 soln. were added over 1 h, and the mixt. was maintained at the b.p. for 1 h to complete the polymn. reaction, whereby a water-sol. polymer was obtained. To this polymer were added 3.2 wt. parts Denacol EX-721 (o-phthalic acid diglycidyl ester) and the mixt. maintained at the b.p. for 3 h, and neutralized with aq. NaOH to obtain a hydrophilic resin. A concrete mix contg. portland cement 320, water 173, fine aggregate (sand) 934, and coarse aggregate (crushed stone) 876 kg/m3,

```
120-min slump an air content 17.7 and 4.9, 19.3 and 5.2, 18.5 and 5.1, and
     17.8 \text{ cm} and 4.8\%, and 28\text{-day} condensation strength 352 \text{ kg/cm2} and begining
    and ending setting time 5:25 and 7 h and 18 min, vs. 18.2 and 4.8, 16.8
     and 4.9, 14.2 and 4.6, and 10.4 and 4.2, and 338 and 5:24 and 7:19, resp.
     copolymer dispersant cement concrete; NK ester M 9G 23G methacrylic acid
     copolymer; hydroxyethyl methacrylate copolymer; crosslinking agent Denacol
    EX acrylic copolymer; acrylic copolymer sodium salt dispersant; ethylene
     oxide propylene oxide copolymer; Blenmer 70PEP 350B copolymer;
     methoxypolyethyleneglycol methacrylate copolymer; Denacol EX 202 611 701
     721 810 841 861; acrylamidomethylpropanesulfonic acid copolymer;
     sulfoethylmethacrylate acrylic acid copolymer; sulfopropoxyethyleneglycol
     acrylate copolymer; Kayarad R 526 Manda HX 202 copolymer; formaldehyde
     naphthalenesulfonate dispersant; lignosulfonic acid sodium salt
     dispersant; dimethylaminoethyl methacrylate copolymer; polyethyleneoxide
     monoallyl ether copolymer; maleic acid copolymer Denacol 830;
     ethyleneimnine ethylene copolymer; styrenesulfonate olefin copolymer;
    vinylsulfonic acid copolymer; diethylaminoethylmethacrylamide copolymer;
     DA 721 sulfoethylmethacrylate copolymer; DM 832 copolymer dispersant
IT
    Epoxy resins, preparation
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (acrylic, dispersants, manuf. of; for concrete, for slump loss
        prevention)
     Polyoxyalkylenes, preparation
ΙT
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (acrylic-epoxy, dispersants, manuf. of; for concrete, for slump loss
        prevention)
IT
     Epoxy resins, preparation
    Epoxy resins, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (acrylic-polyoxyalkylene-, dispersants, manuf. of; for concrete, for
        slump loss prevention)
     Polyoxyalkylenes, preparation
IT
    RL: IMF (Industrial manufacture); PREP (Preparation)
        (allyl group-contg., polymers with Denacol EX 202 and maleic acid,
        sodium salts, dispersants, manuf. of; for concrete, for slump loss
        prevention)
IT
     Cement (construction material)
        (crosslinked acrylic copolymer dispersants for)
IT
        (crosslinked acrylic copolymer dispersants for cement in)
IT
    Dispersing agents
     Plasticizers
        (crosslinked acrylic copolymer dispersants; manuf. of, for concrete,
        for slump loss prevention)
     Polyoxyalkylenes, preparation
     Polyoxyalkylenes, preparation
    RL: IMF (Industrial manufacture); PREP (Preparation)
        (epoxy, dispersants, manuf. of; for concrete, for slump loss
        prevention)
    Epoxy resins, preparation
    Epoxy resins, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (polyoxyalkylene-, dispersants, manuf. of; for concrete, for slump loss
        prevention)
     110-16-7DP, Maleic acid, polymers with Denacol EX-202 and polyalkylene
     glycol monoallyl ethers, sodium salts
                                            2867-47-2DP,
     N,N-Dimethylaminoethyl methacrylate, quaternized, polymers with Denacol
     EX-721 and sodium acrylate
                                  7446-81-3DP, Sodium acrylate, polymers with
     Denacol EX-721 and quaternized dimethylaminoethyl methacrylate
    37099-12-0DP, Denacol EX-721, polymers with quaternized dimethylaminoethyl
     methacrylate and sodium acrylate 54590-60-2DP, Denacol EX-202, polymers
     with maleic acid and polyalkylene glycol monoallyl ethers, sodium salts
     80833-82-5P, Acrylic acid-Denacol EX-841 copolymer sodium salt
     -1P, Denacol EX-721-methacrylic acid-polyethyleneglycol
     polypropyleneglycol methacrylate copolymer
                                                 137112-16-4P, Acrylic
     acid-ethyleneimine-Denacol EX-202-sodium acrylate copolymer
                                                                    137112-17-5P
     , Denacol EX-202-ethyleneimine-methacrylic acid copolymer
                                                                  137112-19-7P,
    Denacol EX-721-ethyleneimine-maleic anhydride-styrene copolymer
    7-7P, Denacol EX-861-methacrylic acid-polyethyleneglycol
```

and 0.12 wt.% hydrophilic resin as above had initial, and 60-, 90, and

```
polypropyleneglycol methacrylate copolymer
                                                  137213-43-5P, Denacol
    EX-202-polyethyleneglycol monoallyl ether-sodium acrylate copolymer
    218956-35-5P
                    218956-37-7P
                                   218956-39-9P
                                                  218956-41-3P
                                                                  218956-43-5P
    218956-45-7P
                    218956-47-9P
                                   218956-49-1P
                                                  218956-51-5P
                                                                  218956-53-7P
    218956-55-9P
                    218956-57-1P
                                   218956-59-3P
                                                  218956-61-7P
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                                   218956-69-5P
                                                                  218956-73-1P
    218956-65-1P
                    218956-67-3P
                                                  218956-71-9P
                                   218956-78-6P
    218956-75-3P
                    218956-77-5P
                                                  218956-79-7P
                                                                  218956-82-2P
                    218956-89-9P, Denacol EX-202-polyethyleneglycol monoallyl
    218956-83-3P
                                           218956-91-3P, Denacol
    ether-sodium methacrylate copolymer
    EX-830-polyethyleneglycol monoallyl ether-sodium methacrylate copolymer
                    218957-02-9P
    218956-97-9P
                                   218957-05-2P
                                                  218957-08-5P
                                                                  218957-11-0P
    218957-14-3P
                    218957-17-6P
                                   218957-19-8P
                                                  218957-20-1P
                                                                  218957-22-3P
    218957-24-5P
                    218957-26-7P
                                   218957-28-9P
                                                                  219320-31-7P
                                                  219316-95-7P
    219320-37-3P
                    219320-39-5P
                                   219320-40-8P
                                                  219478-34-9P
    RL: IMF (Industrial manufacture); PREP (Preparation)
        (dispersant, manuf. of; for concrete, for slump loss prevention)
    8061-51-6, Sodium lignosulfonate
                                        9008-63-3, Formaldehyde-sodium
    naphthalenesulfonate copolymer
    RL: NUU (Other use, unclassified); USES (Uses)
        (dispersants contg. crosslinked acrylic polymers and; for concrete, for
        slump loss prevention)
       41
              THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
(1) Anon; DE 1948755 1970 CAPLUS
(2) Anon; FR 2377421 1978 CAPLUS
(3) Anon; JP 54139929 1979 CAPLUS
(4) Anon; JP 5452196 1979
(5) Anon; FR 2525121 1983 CAPLUS
(6) Anon; JP 60161365 1985 CAPLUS
(7) Anon; JP 6016851 1985
(8) Anon; EP 0240586 1986 CAPLUS
(9) Anon; EP 0256144 1986 CAPLUS
(10) Anon; JP 6131497 1986
(11) Anon; JP 6131498 1986
(12) Anon; JP 62119147 1987 CAPLUS
(13) Anon; JP 62216950 1987 CAPLUS
(14) Anon; JP 62241855 1987 CAPLUS
(15) Anon; JP 62292664 1987 CAPLUS
(16) Anon; JP 6230648 1987
(17) Anon; EP 0291590 A 1988 CAPLUS
(18) Anon; JP 63162562 1988 CAPLUS
(19) Anon; JP 63291840 1988 CAPLUS
(20) Anon; JP 63305199 1988 CAPLUS
(21) Anon; JP 63305200 1988 CAPLUS
(22) Anon; EP 0377448 1990 CAPLUS
(23) Anon; Polymer Preprints 1989, V38(3)
(24) Boeckh; US 4980088 1990 CAPLUS
(25) Dammann; US 4338239 1982 CAPLUS
(26) Emmons; US 4120839 1978 CAPLUS
(27) Herron; US 5183707 1993 CAPLUS
(28) Hsu; US 4758641 1988 CAPLUS
(29) Ito; US 4743301 1988 CAPLUS
(30) Khoshdel; US 5159041 1992 CAPLUS
(31) Patzschke; US 4857580 1989 CAPLUS
(32) Pettit; US 4727111 1988 CAPLUS
(33) Seelmann-Eggbert; US 5104951 1992 CAPLUS
(34) Tahara; US 5298570 1994 CAPLUS
(35) Tahara; US 5476885 1995 CAPLUS
(36) Tonge; US 4764554 1988 CAPLUS
(37) Tsubakimoto; US 4666983 1987 CAPLUS
(38) Tsubakimoto; US 4870120 1989 CAPLUS
(39) Vaughn; US 3687909 1972 CAPLUS
(40) Yamaquchi; US 5064563 1991 CAPLUS
(41) Yamaquchi; US 5135677 1992 CAPLUS
     ANSWER 3 OF 6 REGISTRY COPYRIGHT 2006 ACS on STN
     149011-48-3 REGISTRY
     Entered STN: 30 Jul 1993
     Chitosan, polymer with .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy) -, polymer with chitosan (9CI)
```

IT

L1

RN ED

CN

```
OTHER NAMES:
      ***Chitosan-Denacol EX 841 copolymer***
CN
    Chitosan-nonaethylene glycol diglycidyl ether copolymer
DR
    388603-21-2
     ((C2 H4 O)n C6 H10 O3 . Unspecified)x
MF
CI
PCT
    Epoxy resin, Manual component, Polyether, Polyother
SR
    CA
LC
    STN Files:
                CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Journal; Patent
      Roles from patents: BIOL (Biological study); PREP (Preparation); USES
RL.P
      (Uses)
      Roles from non-patents: PREP (Preparation); PROC (Process); PRP
RL.NP
      (Properties); USES (Uses)
Ring System Data
Elemental | Elemental | Size of | Ring System | Ring
                                                    RID
Analysis | Sequence | the Rings | Formula | Identifier | Occurrence
      ES SZ RF RID Count
  EΑ
______
        OC2 3
                           |C20 | 1.30.1 | 2 in CM
                                                 1
    CM
         1
    CRN 26403-72-5
    CMF
         (C2 H4 O)n C6 H10 O3
    CCI
        PMS
/ Structure 8 in file .gra /
    CM
         2
    CRN
         9012-76-4
    CMF
         Unspecified
    CCI
        PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
              8 REFERENCES IN FILE CA (1907 TO DATE)
              8 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE 1
AN
    136:406913 CA
    Method for restoring a damaged or degenerated intervertebral disk
ΤI
    Desrosiers, Eric Andre; Chenite, Abdellatif; Berrada, Mohammed; Chaput,
IN
PA
    Bio Syntech Canada Inc., Can.
SO
    PCT Int. Appl., 46 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
IC
    ICM A61L027-00
CC
     63-7 (Pharmaceuticals)
FAN.CNT 1
                                        APPLICATION NO. DATE
    PATENT NO.
                   KIND DATE
     ______
                    ----
                                        _____
                   A2
                                        WO 2001-CA1623
                                                        20011115
                          20020523
PΙ
    WO 2002040070
                    A3 20021003
    WO 2002040070
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
            UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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CA 2001-2429168 20011115
     CA 2429168
                       AA
                            20020523
                                           AU 2002-21370
     AU 2002021370
                      A5
                            20020527
                                                            20011115
     US 2004091540
                      A1
                            20040513
                                           US 2003-416947
                                                            20031215
PRAI US 2000-248226P 20001115
     US 2000-248568P 20001116
     WO 2001-CA1623
                      20011115
     The present invention relates to a minimally-invasive method for restoring
AB
     a damaged or degenerated intervertebral disk at an early stage. The
     method comprises the step of administering an injectable in situ setting
     formulation in the nucleus pulposus of the damaged or degenerated disk of
     a patient. The formulation once injected combines with nucleus matters
     and host cells, and becomes viscous or gels in situ within the annulus
     fibrosus of the disk for increasing the thickness and vol. of the damaged
     or degenerated disk. The formulation is retained within the disk for
     providing restoration of the damaged or degenerated disk. An acidic soln.
     made of a water/acetic acid was prepd. for all expts. The pH of this
     acidic soln. was adjusted to 4.0. High mol. wt. chitosan powder was added
     and dissolved in a vol. of the acidic soln. so as to produce chitosan
     solns. having chitosan proportions ranging from 0.5 to 2.0%.
     Glycerophosphate was added to the chitosan solns. and induced a pH
     increase. Chitosan and .beta.-glycerophosphate components individually
     influenced the pH increase within the aq. solns., and consequently
     influenced the sol to gel transition.
     intervertebral disk degeneration chitosan
ST
     Prosthetic materials and Prosthetics
IT
        (bioactive glass; method for restoring damaged or degenerated
        intervertebral disk)
IT
     Drug delivery systems
        (gels; method for restoring damaged or degenerated intervertebral disk)
     Drug delivery systems
IT
        (granules; method for restoring damaged or degenerated intervertebral
        disk)
TT
     Polyesters, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (hydroxycarboxylic acid-based; method for restoring damaged or
        degenerated intervertebral disk)
IT
     Drug delivery systems
        (injections; method for restoring damaged or degenerated intervertebral
ΙT
     Spinal column, disease
        (intervertebral disk hernia; method for restoring damaged or
        degenerated intervertebral disk)
     Spinal column
        (intervertebral disk; method for restoring damaged or degenerated
        intervertebral disk)
     Monosaccharides
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (ketoses, monophosphate esterss, salts; method for restoring damaged or
        degenerated intervertebral disk)
     Polyesters, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (lactic acid-based; method for restoring damaged or degenerated
        intervertebral disk)
     Analgesics
     Anti-inflammatory agents
     Chondrocyte
     Crosslinking
     Gelation
     Human
     Sol-gel transition
     Solvent effect
     Stem cell
        (method for restoring damaged or degenerated intervertebral disk)
IT
     Collagens, biological studies
     Cytokines
     Fatty acids, biological studies
     Gelatins, biological studies
     Growth factors, animal
     Peptides, biological studies
     Polyanhydrides
     Polycarbonates, biological studies
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Polyesters, biological studies Polymers, biological studies Polyoxyalkylenes, biological studies Polysaccharides, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method for restoring damaged or degenerated intervertebral disk) IT Drug delivery systems (microparticles; method for restoring damaged or degenerated intervertebral disk) IT Drug delivery systems (microspheres; method for restoring damaged or degenerated intervertebral disk) Polyethers, biological studies ITRL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ortho ester group-contg.; method for restoring damaged or degenerated intervertebral disk) ΙT Polymers, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (water-sol.; method for restoring damaged or degenerated intervertebral disk) IT 56-81-5, Glycerol, uses 64-17-5, Ethanol, uses 102-76-1, Triacetin RL: NUU (Other use, unclassified); USES (Uses) (method for restoring damaged or degenerated intervertebral disk) 92451-01-9 135649-01-3 78274-32-5 ΙT RL: RCT (Reactant); RACT (Reactant or reagent) (method for restoring damaged or degenerated intervertebral disk) TT 9004-74-4, MPEG RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (method for restoring damaged or degenerated intervertebral disk) TT 126683-27-0P 135649-01-3DP, reaction product with chitosan 149011-48-3P RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (method for restoring damaged or degenerated intervertebral disk) 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, IT 112-80-1, Oleic acid, biological studies biological studies 471-34-1, Calcium carbonate, biological studies Palmitoleic acid 544-63-8, Myristic acid, biological studies 693-72-1, Vaccenic acid 4220-97-7D, salts 9004-34-6, Cellulose, biological 926-43-2D, salts 9004-61-9, Hyaluronic acid 9004-62-0, Hydroxyethyl cellulose studies 9004-67-5, Methyl cellulose 9007-28-7, Chondroitin 9004-65-3, HPMC 9012-76-4, Chitosan 9012-76-4D, Chitosan, salts with sulfate glucose-1-glycerophosphate and fructose-6-glycerophosphate 10103-46-5, 17989-41-2D, salts Calcium phosphate 17181-54-3D, salts 25322-68-3 25680-11-9D, salts 26009-03-0, Poly(glycolic acid) Polyethylene glycol 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26124-68-5, Poly(glycolic acid) 27120-62-3D, salts 29691-42-7D, salts 29010-57-9D, salts 29033-02-1D, salts 29758-38-1D, salts 34346-01-5, Glycolic acid-lactic acid copolymer 34922-55-9D, salts 36119-15-0D, salts 37647-43-1D, salts 39698-83-4D, salts 40529-38-2D, salts 47341-71-9D, salts 105182-27-2 64913-51-5D, salts 73714-92-8D, salts 99632-97-0D, salts 136332-80-4D, salts D, salts 136291-32-2D, salts 136291-38-8D, salts 136332-86-0D, salts 220715-54-8D, salts 220715-55-9D, salts 220715-56-0D, salts 220715-57-1D, salts 220715-60-6D, salts 220715-63-9D, salts 220715-61-7D, salts 220715-62-8D, salts 428861-87-4 220715-65-1D, salts 220715-66-2D, salts 428861-86-3 429660-95-7D, salts 429660-96-8D, salts 429660-94-6D, salts 429660-98-0D, salts 429660-99-1D, salts 429660-97-9D, salts RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method for restoring damaged or degenerated intervertebral disk)

REFERENCE 2

- AN 136:104099 CA
- TI Modification of chitin-chitosan-cellulose compositions with crosslinking agents
- AU Rogovina, S. Z.; Akopova, T. A.; Vikhoreva, G. A.; Zelenetskii, S. N.; Gorbacheva, I. N.; Suslova, N. V.
- CS Inst. Khim. Fiz. im. N. N. Semenova, Ross. Akad. Nauk, Moscow, 117977, Russia

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Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (2001), 43(9),
SO
     1582-1585
     CODEN: VSSBEE; ISSN: 1023-3091
PB
     MAIK Nauka/Interperiodica Publishing
DT
     Journal
LA
     Russian
CC
     44-5 (Industrial Carbohydrates)
AB
     Solid-phase deacetylation of chitin in the presence of cellulose and
     crosslinking agent, diglycidyl ether of oligo(ethylene oxide) under shear
     deformation was studied. Cellulose-chitosan compn. insol. in alkali and
     acidic aq. solns. were obtained. The resulting products were investigated
     by potentiometric titrn., elemental anal., and IR spectroscopy. The
     presence of cellulose in the reaction mixt. favors an increase in both the
     system homogeneity and the degree of chitin deacetylation.
ST
     solid state deacetylation chitin chitosan crosslinked cellulose;
     polyoxyethylene diglycidyl ether crosslinked chitosan cellulose compn
     Deacetylation
IT
        (solid-phase; modification of chitin-chitosan-cellulose compns. with
        crosslinking agents)
     149011-48-3P, Chitosan-nonaethylene glycol diglycidyl ether copolymer
IT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (crosslinking agent; modification of chitin-chitosan-cellulose compns.
        with crosslinking agents)
     9004-34-6, Cellulose, properties
ΙT
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (modification of chitin-chitosan-cellulose compns. with crosslinking
        agents)
     1398-61-4DP, Chitin, deacetylated
IT
     RL: POF (Polymer in formulation); SPN (Synthetic preparation); PREP
     (Preparation); USES (Uses)
        (modification of chitin-chitosan-cellulose compns. with crosslinking
        agents)
REFERENCE 3
     135:372445 CA
AN
     Solid state production of cellulose-chitosan blends and their modification
ΤI
     with the diglycidyl ether of oligo(ethylene oxide)
ΑU
     Rogovina, S. Z.; Akopova, T. A.; Vikhoreva, G. A.; Gorbacheva, I. N.
     Semenov Institute of Chemical Physics, Russian Academy of Sciences,
CS
     Moscow, 117977, Russia
     Polymer Degradation and Stability (2001), 73(3), 557-560
SO
     CODEN: PDSTDW; ISSN: 0141-3910
PB
     Elsevier Science Ltd.
DT
     Journal
LA
     English
     37-6 (Plastics Manufacture and Processing)
CC
     Section cross-reference(s): 43, 44
     Blends of naturally occurring polysaccharides, i.e., cellulose and
AB
     chitosan, were obtained in the solid phase under high pressure and shear
     deformation. The IR-spectra indicate that the system of hydrogen bonds
     between hydroxyl and amino groups of the polysaccharides changed,
     indicating that blending occurs at the mol. level. A mechanism is
     proposed for formation of cellulose-chitosan blends in the presence of
     diglycidyl ether of oligo(ethylene oxide) diepoxide as crosslinking agent.
     The crosslinking agent reacts predominantly at the amino groups of
     chitosan with formation of a three-dimensional network, cellulose
     macromols. being located within and partially bound with this network by
     the crosslinks. The formation of the network structures results in
     insoly. of cellulose-chitosan compns. in acidic and alk. aq. media.
ST
     cellulose chitosan blend hydrogen bond network structure; diepoxide
     crosslinker cellulose chitosan blend network soly
IT
     Crosslinking
     Hydrogen bond
     Mixing
     Polymer networks
        (prepn. of hydrogen-bonded cellulose-chitosan blends and crosslinking
        with PEO-diglycidyl ether to obtain 3D insol. networks)
IT
     Polymer blends
     RL: PRP (Properties)
        (prepn. of hydrogen-bonded cellulose-chitosan blends and crosslinking
```

```
IT
     9004-34-6, Cellulose, properties
                                        9012-76-4, Chitosan
     RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT
     (Reactant); PROC (Process); RACT (Reactant or reagent)
        (prepn. of hydrogen-bonded cellulose-chitosan blends and crosslinking
        with PEO-diglycidyl ether to obtain 3D insol. networks)
                    192131-37-6P
                                   357334-03-3P
IT
     149011-48-3P
     RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
        (prepn. of hydrogen-bonded cellulose-chitosan blends and crosslinking
        with PEO-diglycidyl ether to obtain 3D insol. networks)
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
(1) Bikales, N; Cellulose and cellulose derivatives 1971
(2) Nakanishi, K; Infrared absorption spectroscopy 1962
(3) Rogovina, S; Polym Sci Ser A 1994, V36(4), P487
(4) Zhbankov, R; Fizika tsellyulozy' ee proiyodnykh 1983
REFERENCE 4
ΑN
     135:197038 CA
     Study of cellulose-chitosan composites. Solid-phase modification,
ΤI
     rheology, films
     Vikhoreva, G. A.; Kil'deeva, N. R.; Gorbacheva, I. N.; Shablykova, E. A.;
ΑU
     Rogovina, S. Z.; Akopova, T. A.
     Moscow State Textile University, Russia
CS
     Fibre Chemistry (Translation of Khimicheskie Volokna) (2000), 32(6),
so
     402-406
     CODEN: FICYAP; ISSN: 0015-0541
PΒ
     Consultants Bureau
DТ
     Journal
     English
LA
     43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
CC
     Section cross-reference(s): 38, 44
     A method is proposed for processing of exptl. data which would allow
AB
     adequately describing the rheol. behavior of systems whose disperse phase
     contains swelling particles of anisometric shape. Polysaccharide films
     with a high degree of swelling were obtained from dispersions of powd.
     cellulose in chitosan solns. The high sorption capacity of the films,
     good adhesion to skin, lack of toxicity, and possibility of immobilizing
     drugs in them allow considering these films as promising materials for
     healing wounds and burns.
     polyethylene oxide diglycidyl ether crosslinking cellulose chitosan
ST
     swelling sorption
IT
     Sorption
        (Cu2+; solid-phase modification, rheol., films of cellulose-chitosan
        composites)
IT
     Size distributions
        (cellulose particles; solid-phase modification, rheol., films of
        cellulose-chitosan composites)
IT
     Diffusion activation energy
     Elongation, mechanical
     Shear stress
     Swelling, physical
     Tensile strength
     Viscosity
        (solid-phase modification, rheol., films of cellulose-chitosan
        composites)
IT
     Polysaccharides, processes
     RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN
     (Synthetic preparation); PREP (Preparation); PROC (Process)
        (solid-phase modification, rheol., films of cellulose-chitosan
        composites)
                    192131-37-6P
                                   357334-03-3P
ΙT
     149011-48-3P
     RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN
     (Synthetic preparation); PREP (Preparation); PROC (Process)
        (solid-phase modification, rheol., films of cellulose-chitosan
        composites)
              THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
(1) Akopova, T; Vysokomolek Soedin 1995, V37B(10), P1797
(2) Kuleznev, V; Polymer Blends [in Russian] 1980, P197
(3) Lipatov, Y; Physicochemical Principles of Filling of Polymers [in Russian]
    1991
(4) Mills, N; J Appl Polym Sci 1975, V15, P2791
```

with PEO-diglycidyl ether to obtain 3D insol. networks)

- (5) Rogovina, S; J Appl Polym Sci 1998, V70, P927 CAPLUS
- (6) Sagalaev, G; Fillers for Polymeric Materials [in Russian] 1969, P18
- (7) Vikhoreva, G; Vysokomolek Soedin 1996, V38B(10), P1731

REFERENCE 5

AN 124:263322 CA

- TI Finishing polynosic rayon fabrics for antibacterial odor-absorbing prints with improved print brightness on the nonprinted side
- IN Yabe, Hiroaki; Yoshikawa, Kingo; Okabayashi, Kenichi; Okuda, Isamu
- PA Fuji Spinning Co Ltd, Japan
- SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M015-55

ICS D06M015-03

CC 40-6 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	JP 08027675	A2	19960130	JP 1994-183860	19940713
	TD 2800094	R2 .	19980921		

PRAI JP 1994-183860 19940713

- AB In the title process, fabrics of chitosan-coated polynosic rayon or chitosan-contg. polynosic rayon are treated with epoxy compds. as alkylating agents or crosslinking agents. The prints are useful for handkerchiefs and scurfs. A woven fabric polynosic rayon was immersed in an aq. soln. contg. chitosan acetate, squeezed, dried, treated with a coagulating soln., washed, dried, treated with an aq. soln. contg. Denacol EX -841 for 30 s, squeezed to pickup 80%, heat treated 2 min under steam at 100.degree., printed, heat treated under steam for 10 min at 102-103.degree., washed, and dried to give a printed handkerchief exhibiting good print brightness on the back side and good antibacterial and odor absorption properties.
- ST polynosic rayon print antibacterial; handkerchief antibacterial polynosic rayon print; scurf antibacterial polynosic rayon print; chitosan antibacterial finish polynosic rayon print; odor absorption polynosic rayon print; epoxy resin finish antibacterial rayon print
- IT Odor and Odorous substances

(absorbents, chitosan; for finishing polynosic rayon fabrics for antibacterial odor-absorbing prints)

IT Bactericides, Disinfectants, and Antiseptics

(chitosan; for finishing polynosic rayon fabrics for antibacterial odor-absorbing prints)

IT Rayon, uses

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (fabrics; finishing for antibacterial prints with improved print brightness on the nonprinted side)

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(finishing agents; for finishing polynosic rayon fabrics for
antibacterial prints with improved print brightness on the nonprinted
side)

IT Wearing apparel

(handkerchiefs or scurfs; finishing polynosic rayon fabrics for antibacterial odor-absorbing prints with improved print brightness on the nonprinted side)

IT Textile printing

(on polynosic rayon fabrics; finishing for antibacterial prints with improved print brightness on the nonprinted side for)

IT 149011-48-3 175342-78-6 175414-54-7

RL: TEM (Technical or engineered material use); USES (Uses) (finish; for finishing polynosic rayon fabrics for antibacterial prints with improved print brightness on the nonprinted side)

REFERENCE 6

AN 122:83560 CA

TI Breakthrough curve for adsorption of acid dye on crosslinked chitosan fiber

```
ΑU
     Yoshida, Hiroyuki; Okamoto, Akihide; Yamasaki, Haruo; Kataoka, Takeshi
     Dep. Chem. Eng., Univ. Osaka Prefect., Sakai, 593, Japan
CS
SO
     Studies in Surface Science and Catalysis (1993), 80 (Fundamentals of
     Adsorption), 767-74
     CODEN: SSCTDM; ISSN: 0167-2991
DT
     Journal
LΑ
     English
CC
     40-6 (Textiles and Fibers)
     1He recovery of univalent anionic dye by adsorption on crosslinked
AB
     chitosan fiber, which was developed, appeared feasible tech. Equil.
     isotherms for adsorption of Acid Orange II (acid dye) on crosslinked
     chitosan fibers were correlated by B.E.T. equation for finite no. of
     layers at pH 6.9 and were almost rectangular at pH .ltoreq. 4. The satn.
     capacities of the dye adsorbed on ChF-A and ChF-B at pH .ltoreq. 4 were 2
     and 1.6 times larger than activated carbon fiber, resp. When pH .ltoreq.
     4, the breakthrough curve was independent of pH of the soln. The exptl.
     breakthrough curves for pH .ltoreq. 4 were well correlated by the anal.
     soln. for rectangular isotherm system.
     crosslinked chitosan fiber dye removal; acid dye removal textile
ST
     wastewater
     Synthetic fibers
IT
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (chitosan-Denacol EX841; removal of acid dyes from textile industry
        wastewaters by adsorption on crosslinked chitosan fibers)
     Adsorption
IT
     Wastewater
        (removal of acid dyes from textile industry wastewaters by adsorption
        on crosslinked chitosan fibers)
IT
     Dyes
        (acid, removal of acid dyes from textile industry wastewaters by
        adsorption on crosslinked chitosan fibers)
     149011-48-3P, Chitosan-Denacol EX 841 copolymer
TT
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (removal of acid dyes from textile industry wastewaters by adsorption
        on crosslinked chitosan fibers)
     633-96-5, Acid orange II
IT
     RL: REM (Removal or disposal); PROC (Process)
        (removal of acid dyes from textile industry wastewaters by adsorption
        on crosslinked chitosan fibers)
REFERENCE 7
AN
     Chitosan, poly(vinyl alcohol) or alginic acid-based semipermeable
     membranes and their manufacture
IN
     Mizusawa, Atsushi
     Daikin Ind Ltd, Japan
     Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
     Patent
DT
LA
     Japanese
     ICM G01N027-40
     ICS C08G059-40; C08L005-08; C08L029-04; C12Q001-00; G01N027-327
CC
     38-3 (Plastics Fabrication and Uses)
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO. DATE
     -----
                     - - - -
                           -----
                                           -----
                            19940415
                                           JP 1992-275453
                                                            19920918
     JP 06102229
                     A2
PRAI JP 1992-275453
                      19920918
     The membranes, with good strength, are prepd. by crosslinking polyethylene
     glycol diglycidyl ether (I) with polyvinyl alc., alginic acid, and/or
     chitosan. A membrane was prepd. by heating a chitosan soln. with I and
     polyethylene glycol glycidyl ether copolymer membrane; chitosan copolymer
st
     semipermeable membrane; vinyl alc copolymer semipermeable membrane;
     alginic acid copolymer semipermeable membrane
     Molding of plastics and rubbers
IT
```

(casting, of polyethylene glycol glycidyl ether copolymer, for

IT Membranes

semipermeable membranes)

```
of)
IT
     557-75-5DP, Vinyl alcohol, crosslinked
                                              26403-72-5DP, Polyethylene glycol
     diglycidyl ether, crosslinked
                                    149011-48-3P
                                                    157723-27-8P
     RL: PREP (Preparation)
        (semipermeable membranes, prepn. of)
REFERENCE 8
AN
     119:74584 CA
     Adsorption of acid dye on crosslinked chitosan fibers: equilibria
TI
     Yoshida, Hiroyuki; Okamoto, Akihide; Kataoka, Takeshi
ΑU
     Dep. Chem. Eng., Univ. Osaka Prefect., Sakai, 593, Japan
CS
     Chemical Engineering Science (1993), 48(12), 2267-72
SO
     CODEN: CESCAC; ISSN: 0009-2509
DT
     Journal
     English
LA
     41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
CC
     Sensitizers)
     Section cross-reference(s): 44
     Two different Denacol EX841-crosslinked chitosan fibers (A and B) were
AB
     developed for use as adsorbents for the recovery of acid dyes. The concn.
     of NH2 groups in the adsorbent phase was 3-5 times larger than that of
     com. weak-base ion exchangers and decreased with increasing degree of
     crosslinking. For pH = 6.9, the exptl. equil. isotherms for adsorption of
     Acid Orange II were correlated by the BET equation for a finite no. of
     layers. The max. amts. of the dye adsorbed on noncrosslinked chitosan
     fiber, A, and B were about 10, 6, and 3.2 mol/kg, resp., for initial dye
     liq.-phase concn. (CO) 1 mol/m3 and 298 K. These values were much larger
     than the corresponding values for activated carbon fiber. The amt. of the
     dye adsorbed increased with increasing CO and decreased with increasing
     temp. The presence of NaCl also increased the amt. of the dye adsorbed.
     For pH .ltoreq.4, the selectivity of adsorption of the dye was extremely
     high and the isotherm was almost rectangular. The satn. capacities of the
     dye on A and B at pH .ltoreq.4 were 4.8 and 3.5 mol/kg, resp., almost the
     same as the concns. of the NH2 groups in the solid phase of A and B, resp.
ST
     acid dye chitosan adsorption
IT
     Adsorption
        (of acid azo dyes, on chitosan fibers)
IT
     Fibrous materials
        (adsorbents, crosslinked chitosan, for acid azo dyes)
     Synthetic fibers, polymeric
     RL: USES (Uses)
        (chitosan, adsorbents, for acid azo dyes)
IT
     Adsorbents
        (fibrous, crosslinked chitosan, for acid azo dyes)
TT
     633-96-5, Acid Orange II
     RL: PEP (Physical, engineering or chemical process); PROC (Process)
        (adsorption of, on crosslinked chitosan fibers)
     149011-48-3
IT
     RL: USES (Uses)
        (fiber, acid azo dye adsorption on)
     ANSWER 4 OF 6 REGISTRY COPYRIGHT 2006 ACS on STN
L1
     123011-96-1 REGISTRY
ŔŊ
ED
     Entered STN: 06 Oct 1989
     Formaldehyde, polymer with .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy)poly(oxy-1,2-ethanediyl) and phenol (9CI) (CA INDEX
     NAME)
OTHER CA INDEX NAMES:
     Phenol, polymer with formaldehyde and .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy) poly (oxy-1, 2-ethanediyl) (9CI)
     Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy) -, polymer with formaldehyde and phenol (9CI)
OTHER NAMES:
       ***Denacol EX 841-formaldehyde-phenol copolymer***
MF
     (C6 H6 O . (C2 H4 O)n C6 H10 O3 . C H2 O)x
CI
PCT
     Epoxy resin, Phenolic resin, Polyether
SR
     CA
     STN Files:
                  CA, CAPLUS
DT.CA CAplus document type: Patent
```

(semipermeable, polyethylene glycol glycidyl ether copolymer, prepn.

```
Roles from patents: PREP (Preparation); PRP (Properties); USES (Uses)
RL.P
Ring System Data
Elemental | Elemental | Size of | Ring System |
                                          Ring
                                                    RID
Analysis | Sequence | the Rings | Formula | Identifier | Occurrence
       ES SZ RF RID Count
______+
         l C6
                  6
                           C6
                                       46.150.18 | 1 in CM
C6
                                                 2
                  | 3
C20
         OC2
                           C20
                                       1.30.1
                                                 2 in CM
                                                1
    CM
         1
    CRN
         26403-72-5
         (C2 H4 O)n C6 H10 O3
    CMF
    CCI PMS
/ Structure 9 in file .gra /
    CM
         2
    CRN 108-95-2
    CMF C6 H6 O
/ Structure 10 in file .gra /
    CM
         3
    CRN 50-00-0
    CMF C H2 O
/ Structure 11 in file .gra /
              3 REFERENCES IN FILE CA (1907 TO DATE)
              3 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE 1
    142:377473 CA
AN
    Modified phenolic resins and their manufacture for shell molds
IN
    Saneto, Toru
PΑ
    Sumitomo Bakelite Co., Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 14 pp.
    CODEN: JKXXAF
DT
    Patent
LΑ
    Japanese
    ICM B22C001-22
    ICS C08G008-28
    56-2 (Nonferrous Metals and Alloys)
    Section cross-reference(s): 38
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                      APPLICATION NO. DATE
     -----
                   ---- ------
                                        ______
    JP 2005095931
                    A2
                          20050414
                                       JP 2003-332784
                                                        20030925
PRAI JP 2003-332784 20030925
    The resins are manufd. by copolymq. novolak phenolic resins having wt.-av.
    mol. wt. (Mw) 800-5000 with aliph. epoxy resins at reaction ratio 1-30
    mol% so that epoxy groups of the epoxy resins are addn.-reacted to a part
    of phenolic OH groups of the phenolic resins. The molds made of
    resin-coated sand using the above resins have high cold strength and
    improved disintegration after casting metals.
    epoxy resin modified phenolic resin shell mold; resin coated sand shell
```

mold metal casting; aliph epoxy resin modified novolak phenolic resin

manuf

Phenolic resins, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxy, hexamethylenetetramine-crosslinked, mold; aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) IT Phenolic resins, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxy; aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) Epoxy resins, preparation TT RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (phenolic, hexamethylenetetramine-crosslinked, mold; aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) ΙT Epoxy resins, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (phenolic; aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) Molding sand IT (resin-coated; aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) Molds (forms) IT (shell; aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) IT 92717-76-5P, Denacol EX 211-formaldehyde-phenol copolymer 92717-77-6P, Denacol EX 212-formaldehyde-phenol copolymer 123011-96-1P, Denacol EX 841-formaldehyde-phenol copolymer 194866-40-5P, Denacol EX 810-formaldehyde-phenol copolymer RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) 849660-69-1P 849660-71-5P IT849660-70-4P 849660-72-6P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (mold; aliph. epoxy resin-modified novolak phenolic resins and their manuf. for shell molds) REFERENCE 2 AN 127:266524 CA TIBinder compositions for carbon dioxide-hardening molds with high strength IN Yoshida, Akira; Mizuno, Wataru PA Kao Corp., Japan SO Jpn. Kokai Tokkyo Koho, 15 pp. CODEN: JKXXAF DT Patent LAJapanese IC ICM B22C009-12 ICS B22C001-22 CC 56-2 (Nonferrous Metals and Alloys) Section cross-reference(s): 38 FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ____ ----------A2 JP 09206885 19970812 JP 1996-15237 19960131 JP 3453469 B2 20031006 Α CN 1997-110004 CN 1171991 19980204 19970131 CN 1108207 В 20030514 19960131 PRAI JP 1996-15237 Title binder compns. comprise (A) epoxy compds. 0.1-60, (B) alk. aq. solns. of phenolic resins 15-99.7, (C) crosslinking accelerators 0.1-20, and (D) silane coupling agents 0.1-10 parts in 100 parts of total. Resin kits contg. the binder compns. for CO2-hardened molds, are also claimed. Molds are manufd. by kneading 100 parts refractory particles and 0.1-10 parts the binder compns. or the resin kits, followed by hardening of the kneaded materials with 0.1-30 parts CO2 in a mold.

carbon dioxide hardening mold binder strength; epoxy phenolic resin binder

ST

```
epoxy phenolic resin binder
IT
     Binders
     Crosslinking catalysts
     Molds (forms)
        (epoxy phenolic resin binder compns. contg. boron compd. crosslinking
        accelerators for carbon dioxide-hardening molds)
IT
     Sand
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (hardening of; epoxy phenolic resin binder compns. contg. boron compd.
        crosslinking accelerators for carbon dioxide-hardening molds)
IT
     Phenolic resins, preparation
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (polyglycidyl ethers, polymers; epoxy phenolic resin binder compns.
        contg. boron compd. crosslinking accelerators for carbon
        dioxide-hardening molds)
     Phenolic resins, preparation
IT
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (polymers with phenolic resin polyglycidyl ethers; epoxy phenolic resin
        binder compns. contg. boron compd. crosslinking accelerators for carbon
        dioxide-hardening molds)
ΙT
     Epoxides
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (polymers with phenolic resins; epoxy phenolic resin binder compns.
        contg. boron compd. crosslinking accelerators for carbon
        dioxide-hardening molds)
     Cement (construction material)
IT
        (portland, binders contg.; epoxy phenolic resin binder compns. contg.
        boron compd. crosslinking accelerators for carbon dioxide-hardening
        molds)
TТ
     128801-08-1P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (binders contg.; epoxy phenolic resin binder compns. contg. boron
        compd. crosslinking accelerators for carbon dioxide-hardening molds)
IT
     139-12-8, Aluminum acetate 373-02-4, Nickel acetate
                                                            555-31-7,
     Triisopropoxyaluminum 688-37-9, Aluminum oleate
                                                       1305-62-0, Calcium
     hydroxide, uses
                      1309-42-8, Magnesium hydroxide 1344-28-1, Alumina,
            4180-12-5, Copper acetate 7646-85-7, Zinc chloride, uses
     11138-49-1, Sodium aluminate 12604-53-4, Ferromanganese
                                                                 12673-69-7,
     Potassium titanate
                        14025-21-9, Disodium zinc EDTA
                                                          15086-27-8, Aluminum
    phenolate
                18917-91-4, Aluminum lactate
                                               21645-51-2, Aluminum hydroxide,
           39322-04-8, Chromium potassium oxide
                                                  60328-44-1, Sodium zirconium
     oxide
             63465-09-8, Vanadium acetate
    RL: MOA (Modifier or additive use); USES (Uses)
        (binders contg.; epoxy phenolic resin binder compns. contg. boron
        compd. crosslinking accelerators for carbon dioxide-hardening molds)
     1303-96-4, Borax
IT
     RL: CAT (Catalyst use); USES (Uses)
        (crosslinking accelerators; epoxy phenolic resin binder compns. contg.
        boron compd. crosslinking accelerators for carbon dioxide-hardening
       molds)
IT
     9003-35-4DP, Formaldehyde-phenol copolymer, polymers with phenolic resin
                         25085-75-0DP, Bisphenol A-formaldehyde copolymer,
    polyglycidyl ethers
     polymers with phenolic resin polyglycidyl ethers
                                                       25134-86-5P
     1DP, Bisphenol A-formaldehyde-phenol copolymer, polymers with phenolic
    resin polyglycidyl ethers 52736-36-4P, Bisphenol A diglycidyl
     ether-formaldehyde-phenol copolymer
                                          55340-95-9P
                                                        69453-32-3P
                  107087-88-7P
    71212-53-8P
                                123011-96-1P
                                                125395-70-2P 194866-38-1P
    194866-39-2P
                   194866-40-5P
                                  194866-41-6P
                                                 194866-43-8P
                                                               194866-46-1P
     194866-48-3P
                  194866-50-7P
                                 194866-53-0P
                                                 194866-56-3P
                                                                194866-60-9P
     194866-63-2P
                  194866-65-4P
                                 194866-67-6P
                                                 194866-69-8P
                                                                194866-71-2P
     194866-73-4P
                   194866-74-5P
                                 194866-75-6P
                                                 194866-76-7P
                                                                 194866-77-8P
```

194866-80-3P

194866-81-4P

194866-82-5P

194866-78-9P

194866-79-0P

mold; borax crosslinking accelerator epoxy phenolic resin; silane coupler

```
194866-83-6P
                   194866-84-7P
    RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
    (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (epoxy phenolic resin binder compns. contg. boron compd. crosslinking
       accelerators for carbon dioxide-hardening molds)
    124-38-9, Carbon dioxide, reactions RL: RCT (Reactant); RACT (Reactant or reagent)
        (epoxy phenolic resin binder compns. contg. boron compd. crosslinking
       accelerators for carbon dioxide-hardening molds)
    919-30-2, .gamma.-Aminopropyltriethoxysilane
    RL: MOA (Modifier or additive use); USES (Uses)
        (silane coupling agents, binders contg.; epoxy phenolic resin binder
       compns. contg. boron compd. crosslinking accelerators for carbon
       dioxide-hardening molds)
REFERENCE 3
    111:155047 CA
    Glycidyl ether-modified phenolic resins
    Kawamura, Nobuyuki
    Matsushita Electric Works, Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 4 pp.
    CODEN: JKXXAF
    Patent
    Japanese
    ICM C08G008-28
    37-3 (Plastics Manufacture and Processing)
FAN.CNT 1
                                         APPLICATION NO. DATE
    PATENT NO.
                     KIND DATE
                          _____
    ______
                    ----
                                         -----
                                                         _____
    JP 01074212
                    A2
                          19890320
                                         JP 1987-230515
                                                          19870914
PRAI JP 1987-230515 19870914
    The title resins are prepd. with good flexibility. Heating PhOH 2545, 47%
    HCHO 1400, polyethylene glycol diglycidyl ether 1346 g, and oxalic acid
    8.4 q at 105.degree. for 3 h and dehydrating in vacuo gave a copolymer, 50
    parts of which was mixed with powd. wood 30, glass fibers 15, hexamine 4,
    and Zn stearate 1 part. Curing this compn. at 165.degree. for 2 min gave
    a product with flexural strength 13 kg/mm2, flexural modulus 520 kg/mm2,
    Charpy impact strength 5.6 kg-cm/cm2, du Pont impact strength 25 kg-cm,
    and good crack resistance; vs. 12, 961, 2.6, 9, and poor, resp., for an
    unmodified phenolic resin.
    phenolic resin blend glycidyl ether; crack resistance phenolic resin;
    polyoxyethylene glycidyl ether blend
    123011-96-1P
    RL: PREP (Preparation)
        (manuf. of, with good flexibility)
    ANSWER 5 OF 6 REGISTRY COPYRIGHT 2006 ACS on STN
    80833-82-5 REGISTRY
    Entered STN: 16 Nov 1984
    2-Propenoic acid, polymer with .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy)poly(oxy-1,2-ethanediyl), sodium salt (9CI) (CA INDEX
    NAME)
OTHER CA INDEX NAMES:
    Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy) -, polymer with 2-propenoic acid, sodium salt (9CI)
OTHER NAMES:
       ***Acrylic acid-Denacol EX-841 copolymer sodium salt***
     (C3 H4 O2 . (C2 H4 O)n C6 H1O O3)x . x Na
    Epoxy resin, Polyacrylic, Polyether
    STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
      Roles from patents: PREP (Preparation); PRP (Properties); USES (Uses)
Ring System Data
Elemental | Size of | Ring System |
                                           Ring
                                                      RID
                                        |Identifier|Occurrence
Analysis |Sequence |the Rings|
                               Formula
        | ES
                 SZ
                            RF
  EΑ
                                        RID Count
______+
             | 3
                          C20
                                                 2 in CM
         OC2
                                 1.30.1
```

IT

IT

AN

TΙ

IN

PA

SO

DT

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IC

CC

PΙ

ST

IT

L1

RN

ED

CN

CN

MF

```
CM
    CRN
         80833-81-4
          (C3 H4 O2 . (C2 H4 O)n C6 H10 O3)x
    CMF
    CCI
         CM
         CRN
              26403-72-5
         CMF
               (C2 H4 O)n C6 H10 O3
         CCI
              PMS
/ Structure 12 in file .gra /
         CM
               3
         CRN 79-10-7
         CMF C3 H4 O2
/ Structure 13 in file .gra /
               8 REFERENCES IN FILE CA (1907 TO DATE)
               8 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE 1
AN
     141:72772 CA
    Water-blocking tapes for optical or electric cable
TΙ
     Izutsu, Kaori; Takahara, Yutaka; Amako, Naotake; Ikegami, Koichi
IN
    Awa Paper Mfg. Co., Ltd., Japan; Gooh Chemical Industry Co., Ltd.
PA
    Jpn. Kokai Tokkyo Koho, 16 pp.
SO
    CODEN: JKXXAF
DТ
    Patent
     Japanese
LA
IC
     ICM H01B007-282
     ICS C08J005-24; C09K003-10; H01B007-17; C08L033-00
     38-3 (Plastics Fabrication and Uses)
CC
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                           APPLICATION NO. DATE
     ______
                     _ _ _ _
                           -----
                                           -----
                                           JP 2002-358602
                                                            20021210
                            20040708
PT
    JP 2004192922
                     A2
                     20021210
PRAI JP 2002-358602
     The tapes comprise a (non)woven fabric and an impregnated crosslinked
     resin layer, where the resin is derived by partially neutralizing a
     (meth) acrylic acid monomer component, followed by polymn. or polymg. the
     monomer component first, followed by partial neutralization. A polyester
     nonwoven fabric was soaked in a compn. contg. polyacrylic acid Na salt and
     polyethylene glycol diglycidyl ether and crosslinked to give a highly
     water absorbent sheet.
     water blocking tape optical elec cable; polyacrylic acid sodium salt water
ST
     blocking tape
IT
     Materials
        (tapes; water-blocking tapes for optical or elec. cable)
IT
        (water, tapes; water-blocking tapes for optical or elec. cable)
IT
     Electric cables
     Optical cables
        (water-blocking tapes for optical or elec. cable)
IT
     80833-82-5P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (water-absorbent resin; water-blocking tapes for optical or elec.
        cable)
IT
     7631-86-9, Silica, uses
                               39290-68-1, Gohsefimer Z200
     RL: TEM (Technical or engineered material use); USES (Uses)
        (water-blocking tapes for optical or elec. cable)
```

Т

```
AN
    139:324697 CA
    Adhesion of poly(carboxylic acid)-type compounds to fibers for washfast
ΤI
    hydrophilic and temperature retention properties, by adhering mixtures
    comprising poly(carboxylic acid) compounds, polyfunctional
    group-containing crosslinking agents and binders to fibers and
    heat-treating the fibers and adhered materials therefrom
    Yamagata, Tamiji
IN
PA
    Daiwa Chemical Industries Co., Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 5 pp.
    CODEN: JKXXAF
DT
    Patent
    Japanese
LA
    ICM D06M015-263
IC
         C08K005-29; C08L033-00; C08L035-00; C08L061-00; C08L061-28;
         C08L063-00; C08L101-00; D06M015-39; D06M015-423; D06M015-53;
         D06M015-564
    40-9 (Textiles and Fibers)
CC
FAN.CNT 1
    PATENT NO.
                 KIND DATE
                                   APPLICATION NO. DATE
                    ----
     _____
                                          -----
    JP 2003301380
                     A2 20031024 JP 2002-134700
                                                           20020403
PΙ
PRAI JP 2002-134700 20020403
    The finished fibers are prepd. by the steps comprising the steps of (a)
    adhering mixts. comprising poly(carboxylic acid) compds. (A), crosslinking
    agents (B) contg. polyfunctional groups, and binders and (b) heat-treating
    the fibers, or the finished fibers are prepd. by the above steps using A
    compds. having one or whole portions of the carboxylic groups of A compds.
    substituted with metals, or the finished fibers are prepd. by the above
    steps using .gtoreq.1 type of compds. form melamine resins, glyoxal
    resins, blocked polyisocyanate derivs. and polyglycidyl derivs. as B
    crosslinking agents. A polyester fabric was immersed in an aq. compn.
    contg. poly(acrylic acid) 5, polyethylene glycol diglycidyl ether 0.5, and
    acrylic polymer binder 1% to pickup 100%, dried, heat-treated 1 min at
    180.degree., and treated with an aq. soln. contg. 2 g/L NaOH for 20 min at
    60.degree., and washed to give a fabric showing H2O content (temp.
    retention degree) 2.46% initially and 2.33% after 30 washings.
    polyester fabric finish acrylic acid copolymer heat retention enhancement;
ST
    textile finish acrylic acid copolymer heat retention property enhancement;
    hydrophilization fiber acrylic acid copolymer finish
    Fabric finishing
IT
    Thermal insulators
        (adhesion of poly(carboxylic acid) compds. to fibers for washfast
       hydrophilic and temp. retention properties, by adhering mixts. of
       poly(carboxylic acid) compds., polyfunctional crosslinking agents and
       binders to the fibers)
IT
    RL: PEP (Physical, engineering or chemical process); PYP (Physical
    process); TEM (Technical or engineered material use); PROC (Process); USES
     (Uses)
        (adhesion of poly(carboxylic acid) compds. to fibers for washfast
       hydrophilic and temp. retention properties, by adhering mixts. of
       poly(carboxylic acid) compds., polyfunctional crosslinking agents and
       binders to the fibers)
IT
    Acrylic polymers, uses
    Polyurethanes, uses
    RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (binders; adhesion of poly(carboxylic acid) compds. to fibers for
       washfast hydrophilic and temp. retention properties, by adhering mixts.
       of poly(carboxylic acid) compds., polyfunctional crosslinking agents
       and binders to the fibers)
IT
    Hydrophilicity
        (enhancement of; adhesion of poly(carboxylic acid) compds. to fibers
       for washfast hydrophilic and temp. retention properties, by adhering
       mixts. of poly(carboxylic acid) compds., polyfunctional crosslinking
       agents and binders to the fibers)
IT
    Polyester fibers, uses
    RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP
```

(Physical process); TEM (Technical or engineered material use); PROC

```
(Process); USES (Uses)
        (fabrics; adhesion of poly(carboxylic acid) compds. to fibers for
       washfast hydrophilic and temp. retention properties, by adhering mixts.
       of poly(carboxylic acid) compds., polyfunctional crosslinking agents
        and binders to the fibers)
    80833-82-5P
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (finish; adhesion of poly(carboxylic acid) compds. to fibers for
       washfast hydrophilic and temp. retention properties, by adhering mixts.
       of poly(carboxylic acid) compds., polyfunctional crosslinking agents
       and binders to the fibers)
REFERENCE 3
    138:239370 CA
    Highly water-absorbing nonwoven fabrics
    Tokuhiro, Toshiya
    Kurashiki Textile Mfg. Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 4 pp.
    CODEN: JKXXAF
    Patent
    Japanese
     ICM B32B027-30
     ICS A01G007-00; B32B027-12; D04H001-40
     40-10 (Textiles and Fibers)
FAN.CNT 1
                                         APPLICATION NO. DATE
    PATENT NO.
                   KIND DATE
                           -----
     _____
                     ----
                                          -----
                     A2
    JP 2003089174
                           20030325
                                          JP 2001-283113
                                                           20010918
PRAI JP 2001-283113
                     20010918
    The nonwoven fabrics, useful for water retention materials for
    horticulture, construction works, etc., are prepd. by allowing
     (meth)acrylate salt resins contg. thermal crosslinking agents to adhere to
     fiber materials of nonwoven fabrics and heating to cure to form highly
    water-absorbing resin layers. Thus, acrylic acid was polymd. in an aq.
     soln. contg. Me2CHOH and acetoacetyl group-modified poly(vinyl alc.),
     neutralized with NaOH, mixed with 1% (to solids content) polyethylene
     glycol diglycidyl ether, impregnated into a rayon/polyester nonwoven
     fabric, and heated to 160.degree. for 5 min to give a water-absorbing
     fabric, which was needle-punched with another rayon/polyester fabric to
     give a sample, showing water absorption capacity 660%, gel drop-out ratio
     after water absorption 3.2%, and good diffusion of water.
     crosslinked sodium polyacrylate water absorbing nonwoven
     Absorbents
     Nonwoven fabrics
        (highly water-absorbing nonwoven fabrics contg. crosslinked
        (meth)acrylate salt resins)
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
        (polyester-, fabrics, nonwoven; highly water-absorbing nonwoven fabrics
        contg. crosslinked (meth)acrylate salt resins)
     Polyester fibers, uses
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (rayon-, fabrics, nonwoven; highly water-absorbing nonwoven fabrics
        contq. crosslinked (meth)acrylate salt resins)
     80833-82-5P
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (highly water-absorbing nonwoven fabrics contg. crosslinked
        (meth)acrylate salt resins)
REFERENCE 4
     130:99461 CA
     Additives for hydraulic compositions, preparation of the additives, and
     cement compositions containing the additives
     Tahara, Hideyuki; Ito, Hiroshi; Mori, Yasuhiro; Mizushima, Makoto
     Nippon Shokubai Kagaku Kogyo Co, Ltd., Japan
     U.S., 47 pp., Cont. of U.S. Ser. No. 498,704, abandoned.
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PA SO DTPatent LA English ICM C08K003-00 ICS C04B028-00; C08F220-00 NCL 524005000 58-2 (Cement, Concrete, and Related Building Materials) Section cross-reference(s): 38 FAN.CNT 2 KIND DATE PATENT NO. APPLICATION NO. DATE ---------US 5854318 19981229 US 1996-759435 Α 19961205 US 5476885 Α 19951219 US 1991-668513 19910325 PRAI JP 1989-190656 19890725 JP 1989-262242 19891009 JP 1989-297455 19891117 US 1991-668513 19910325 US 1995-498704 19950703 JP 1998-228313 19980905 JP 1989-228313 19890905 WO 1990-JP946 19900723 ΆB The hydraulic compns. comprise a hydraulic material, water, and an additive comprising a crosslinked polymer in which, between main chains having water-sol. polymer structure of wt.-av. mol. wt. 500-100,000, a bond having as a structural unit .gtoreq.1 divalent groups having general formula R1CO2R2 [independently, R1, R2 is selected from CH2, CH(R) p-Ph, CR(R1), and CH2CH(OH), with the proviso that R1 is not required if R2 is CH2CH(OH) (independently, R, R1 = C1-5-alkyl)], and in which the main chains comprise .gtoreq.1 members selected from CO2M, CO2(R5O)mSO3M, CONHR7SO3M, (CH2) nSO3M, and p-Ph-SO3M (m = 0 or integral no. of 1-50; n = 0 or 1; M is .gtoreq.1 selected from H, mono-, di-, or trivalent metal, NH4, and org. amine; independently, R1, R6 = C2-4-alkylene; R7 = C1-5-alkylene; with the proviso that when m .gtoreq.2, many of R50 may be the same or different, and, when many of R5O are different from one another, their arrangement may be regular or irregular), and in which the crosslinked polymer is capable of forming a water-sol. polymer by cleavage of the divalent group in an alk. medium. The additive are prepd. by obtaining a crosslinked polymer by a polymg. a monomer contg. .gtoreq.2 polymerizable double bonds and has as structural unit .gtoreq.1 divalent groups as above, with a monomer having one polymerizable double bond capable of copolymg. with the double bonds and capable to form a main chain structure capable of leading to a water-sol. polymer as above. Into a reactor, contg. N-stirred boiling water 164.2 were introduced a soln. contg. NK-ester M-9G (methoxypolyethylene glycol monomethacrylate; av. added ethylene oxide mole no. is 9) 62.9, methacrylic acid 16.7, and water 125.5, and, in addn., 2.5% aq. (NH4)S2O8 soln. 24.6 wt. parts over 4 h. Then, 6.1 wt. parts 2.5% aq. (NH4)S2O8 soln. were added over 1 h, and the mixt. was maintained at the b.p. for 1 h to complete the polymn. reaction, whereby a water-sol. polymer was obtained. To this polymer were added 3.2 wt. parts Denacol EX-721 (o-phthalic acid diglycidyl ester) and the mixt. maintained at the b.p. for 3 h, and neutralized with aq. NaOH to obtain a hydrophilic resin. A concrete mix contg. portland cement 320, water 173, fine aggregate (sand) 934, and coarse aggregate (crushed stone) 876 kg/m3, and 0.12 wt.% hydrophilic resin as above had initial, and 60-, 90, and 120-min slump an air content 17.7 and 4.9, 19.3 and 5.2, 18.5 and 5.1, and 17.8 cm and 4.8%, and 28-day condensation strength 352 kg/cm2 and begining and ending setting time 5:25 and 7 h and 18 min, vs. 18.2 and 4.8, 16.8 and 4.9, 14.2 and 4.6, and 10.4 and 4.2, and 338 and 5:24 and 7:19, resp. ST copolymer dispersant cement concrete; NK ester M 9G 23G methacrylic acid copolymer; hydroxyethyl methacrylate copolymer; crosslinking agent Denacol EX acrylic copolymer; acrylic copolymer sodium salt dispersant; ethylene oxide propylene oxide copolymer; Blenmer 70PEP 350B copolymer; methoxypolyethyleneglycol methacrylate copolymer; Denacol EX 202 611 701 721 810 841 861; acrylamidomethylpropanesulfonic acid copolymer; sulfoethylmethacrylate acrylic acid copolymer; sulfopropoxyethyleneglycol acrylate copolymer; Kayarad R 526 Manda HX 202 copolymer; formaldehyde naphthalenesulfonate dispersant; lignosulfonic acid sodium salt dispersant; dimethylaminoethyl methacrylate copolymer; polyethyleneoxide monoallyl ether copolymer; maleic acid copolymer Denacol 830; ethyleneimnine ethylene copolymer; styrenesulfonate olefin copolymer; vinylsulfonic acid copolymer; diethylaminoethylmethacrylamide copolymer;

DA 721 sulfoethylmethacrylate copolymer; DM 832 copolymer dispersant

CODEN: USXXAM

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IT
     Epoxy resins, preparation
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (acrylic, dispersants, manuf. of; for concrete, for slump loss
        prevention)
     Polyoxyalkylenes, preparation
IT
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (acrylic-epoxy, dispersants, manuf. of; for concrete, for slump loss
        prevention)
IT
     Epoxy resins, preparation
     Epoxy resins, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (acrylic-polyoxyalkylene-, dispersants, manuf. of; for concrete, for
        slump loss prevention)
IT
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (allyl group-contg., polymers with Denacol EX 202 and maleic acid,
        sodium salts, dispersants, manuf. of; for concrete, for slump loss
        prevention)
IT
     Cement (construction material)
        (crosslinked acrylic copolymer dispersants for)
IT
     Concrete
        (crosslinked acrylic copolymer dispersants for cement in)
IT
     Dispersing agents
     Plasticizers
        (crosslinked acrylic copolymer dispersants; manuf. of, for concrete,
        for slump loss prevention)
ΙT
     Polyoxyalkylenes, preparation
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (epoxy, dispersants, manuf. of; for concrete, for slump loss
        prevention)
IT
     Epoxy resins, preparation
     Epoxy resins, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (polyoxyalkylene-, dispersants, manuf. of; for concrete, for slump loss
        prevention)
IT
     110-16-7DP, Maleic acid, polymers with Denacol EX-202 and polyalkylene
     glycol monoallyl ethers, sodium salts
                                            2867-47-2DP,
     N,N-Dimethylaminoethyl methacrylate, quaternized, polymers with Denacol
     EX-721 and sodium acrylate
                                  7446-81-3DP, Sodium acrylate, polymers with
     Denacol EX-721 and quaternized dimethylaminoethyl methacrylate
     37099-12-0DP, Denacol EX-721, polymers with quaternized dimethylaminoethyl
     methacrylate and sodium acrylate 54590-60-2DP, Denacol EX-202, polymers
     with maleic acid and polyalkylene glycol monoallyl ethers, sodium salts
     80833-82-5P, Acrylic acid-Denacol EX-841 copolymer sodium salt
                                                                      136673-67
     -1P, Denacol EX-721-methacrylic acid-polyethyleneglycol
     polypropyleneglycol methacrylate copolymer
                                                 137112-16-4P, Acrylic
     acid-ethyleneimine-Denacol EX-202-sodium acrylate copolymer 137112-17-5P
     , Denacol EX-202-ethyleneimine-methacrylic acid copolymer
                                                                 137112-19-7P,
     Denacol EX-721-ethyleneimine-maleic anhydride-styrene copolymer
     7-7P, Denacol EX-861-methacrylic acid-polyethyleneglycol
     polypropyleneglycol methacrylate copolymer
                                                  137213-43-5P, Denacol
     EX-202-polyethyleneglycol monoallyl ether-sodium acrylate copolymer
     218956-35-5P
                    218956-37-7P
                                   218956-39-9P
                                                  218956-41-3P
                                                                 218956-43-5P
     218956-45-7P
                    218956-47-9P
                                   218956-49-1P
                                                  218956-51-5P
                                                                 218956-53-7P
     218956-55-9P
                    218956-57-1P
                                   218956-59-3P
                                                  218956-61-7P
                                                                 218956-63-9P
                                   218956-69-5P
     218956-65-1P
                    218956-67-3P
                                                  218956-71-9P
                                                                 218956-73-1P
     218956-75-3P
                    218956-77-5P
                                   218956-78-6P
                                                  218956-79-7P
                                                                 218956-82-2P
                    218956-89-9P, Denacol EX-202-polyethyleneglycol monoallyl
     218956-83-3P
     ether-sodium methacrylate copolymer
                                           218956-91-3P, Denacol
     EX-830-polyethyleneglycol monoallyl ether-sodium methacrylate copolymer
     218956-97-9P
                    218957-02-9P
                                   218957-05-2P
                                                  218957-08-5P
                                                                 218957-11-0P
     218957-14-3P
                    218957-17-6P
                                   218957-19-8P
                                                  218957-20-1P
                                                                 218957-22-3P
                    218957-26-7P
                                                                 219320-31-7P
     218957-24-5P
                                   218957-28-9P
                                                  219316-95-7P
                    219320-39-5P
     219320-37-3P
                                   219320-40-8P
                                                  219478-34-9P
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (dispersant, manuf. of; for concrete, for slump loss prevention)
IT
     8061-51-6, Sodium lignosulfonate
                                       9008-63-3, Formaldehyde-sodium
     naphthalenesulfonate copolymer
     RL: NUU (Other use, unclassified); USES (Uses)
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(dispersants contg. crosslinked acrylic polymers and; for concrete, for
        slump loss prevention)
RE.CNT
              THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Anon; DE 1948755 1970 CAPLUS
(2) Anon; FR 2377421 1978 CAPLUS
(3) Anon; JP 54139929 1979 CAPLUS
(4) Anon; JP 5452196 1979
(5) Anon; FR 2525121 1983 CAPLUS
(6) Anon; JP 60161365 1985 CAPLUS
(7) Anon; JP 6016851 1985
(8) Anon; EP 0240586 1986 CAPLUS
(9) Anon; EP 0256144 1986 CAPLUS
(10) Anon; JP 6131497 1986
(11) Anon; JP 6131498 1986
(12) Anon; JP 62119147 1987 CAPLUS
(13) Anon; JP 62216950 1987 CAPLUS
(14) Anon; JP 62241855 1987 CAPLUS
(15) Anon; JP 62292664 1987 CAPLUS
(16) Anon; JP 6230648 1987
(17) Anon; EP 0291590 A 1988 CAPLUS
(18) Anon; JP 63162562 1988 CAPLUS
(19) Anon; JP 63291840 1988 CAPLUS
(20) Anon; JP 63305199 1988 CAPLUS
(21) Anon; JP 63305200 1988 CAPLUS
(22) Anon; EP 0377448 1990 CAPLUS
(23) Anon; Polymer Preprints 1989, V38(3)
(24) Boeckh; US 4980088 1990 CAPLUS
(25) Dammann; US 4338239 1982 CAPLUS
(26) Emmons; US 4120839 1978 CAPLUS
(27) Herron; US 5183707 1993 CAPLUS
(28) Hsu; US 4758641 1988 CAPLUS
(29) Ito; US 4743301 1988 CAPLUS
(30) Khoshdel; US 5159041 1992 CAPLUS
(31) Patzschke; US 4857580 1989 CAPLUS
(32) Pettit; US 4727111 1988 CAPLUS
(33) Seelmann-Eggbert; US 5104951 1992 CAPLUS
(34) Tahara; US 5298570 1994 CAPLUS
(35) Tahara; US 5476885 1995 CAPLUS
(36) Tonge; US 4764554 1988 CAPLUS
(37) Tsubakimoto; US 4666983 1987 CAPLUS
(38) Tsubakimoto; US 4870120 1989 CAPLUS
(39) Vaughn; US 3687909 1972 CAPLUS
(40) Yamaguchi; US 5064563 1991 CAPLUS
(41) Yamaguchi; US 5135677 1992 CAPLUS
REFERENCE 5
AN
     129:331856 CA
ΤI
     (Meth)acrylic acid salt-based polymer solutions, water-absorbing
     composites and fabrics, and their manufacture
IN
     Amako, Naotake; Ikegami, Koichi
PΔ
     Gooh Chemical Industry Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
דת
    Patent
LA
    Japanese
     ICM C08F220-06
IC
     ICS A01G001-00; C08F002-44; C08F008-00; C08F008-44; D06M014-14;
         D06M015-27; D21H019-20
CC
     38-3 (Plastics Fabrication and Uses)
     Section cross-reference(s): 40
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                           APPLICATION NO.
                                                            DATE
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                                                            _____
     JP 10287714
                      A2
                            19981027
                                           JP 1997-97243
PT
                                                            19970415
    JP 3650506
                     B2
                           20050518
                    19970415
PRAI JP 1997-97243
     Title polymer solns. are prepn. by soln. polymg. the (meth)acrylic acid
     monomers in the presence of poly(vinyl alc.) (I) and partially
     neutralizing (meth)acrylic acid monomers or polymers with basic compds.
     before or after polymn. The composites, useful for water-absorbing
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fabrics, are manufd. by adding thermal crosslinking agents to the solns.,

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applying the mixts. (A) onto substrates, and heating the substrates to
    form a water-absorbing resin layer. Thus, acrylic acid was polymd. in the presence of Gohsefimer Z 200 (modified I), neutralized with NaOH, mixed
    with polyethylene glycol diglycidyl ether to form a compn., which was
     sprayed on polyester nonwoven fabric and heated at 180.degree. to give a
     sheet showing water absorption 158 g/g.
    polyacrylic acid salt water absorbing fabric; polyethylene glycol glycidyl
    ether crosslinking agent; polyvinyl alc blend water absorbing composite
    Polyoxyalkylenes, uses
     Polyoxyalkylenes, uses
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (acrylic-epoxy; compns. contg. poly(meth)acrylic acid salts and
        poly(vinyl alc.) for water-absorbing materials)
    Epoxy resins, uses
    Epoxy resins, uses
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (acrylic-polyoxyalkylene-; compns. contg. poly(meth)acrylic acid salts
        and poly(vinyl alc.) for water-absorbing materials)
     Polyester fibers, uses
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
        (fabrics, nonwoven, polyester fibers, substrate; compns. contg.
        poly(meth)acrylic acid salts and poly(vinyl alc.) for water-absorbing
        materials)
     Absorbents
        (for water absorption; compns. contg. poly(meth)acrylic acid salts and
        poly(vinyl alc.) for water-absorbing materials)
     Textiles
        (water-absorbing; compns. contg. poly(meth)acrylic acid salts and
        poly(vinyl alc.) for water-absorbing materials)
     26403-72-5DP, Polyethylene glycol diglycidyl ether, copolymer with
     poly(acrylic acid) sodium salt and poly(vinyl alc.) acetoacetate
     39290-68-1DP, copolymer with poly(acrylic acid) sodium salt and
     polyethylene glycol diglycidyl ether 80833-82-5P
                                                           216690-03-8DP,
     copolymer with polyethylene glycol diglycidyl ether and poly(vinyl alc.)
                    216690-14-1DP, copolymer with acrylic acid, polyethylene
     acetoacetate
     glycol diglycidyl ether and poly(vinyl alc.) acetoacetate
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (compns. contg. poly(meth)acrylic acid salts and poly(vinyl alc.) for
        water-absorbing materials)
     9002-89-5, Gohsenol GH 17
     RL: TEM (Technical or engineered material use); USES (Uses)
        (compns. contg. poly(meth)acrylic acid salts and poly(vinyl alc.) for
        water-absorbing materials)
REFERENCE 6
     127:191215 CA
     Preparation of super-absorbent polymers from water-soluble vinyl monomers
     Igarashi, Tadashi
     Kao Corp., Japan
     Jpn. Kokai Tokkyo Koho, 9 pp.
     CODEN: JKXXAF
     Patent
     Japanese
     ICM C08F002-44
     ICS C08F002-32
     35-4 (Chemistry of Synthetic High Polymers)
     Section cross-reference(s): 38
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO. DATE
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                            -----
                                           _____
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                                                             19960116
     JP 09194514
                      A2
                            19970729
                                          JP 1996-4511
PRAI JP 1996-4511
                      19960116
     Title polymers with high water absorption rate and stable and strong gel
     structure are prepd. by polymg. water-sol. vinyl monomers in the presence
     of alkoxytitanium. Thus, a mixt. of acrylic acid 102.0, H2O 25.5, 30% aq.
     NaOH 140, K2S2O8 0.153, Denacol EX 512 (polyglycerol polyglycidyl ether)
     0.010, and TLA-A-50 (dihydroxybislactatotitanium monoammonium) 0.9 g was
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treated with a mixt. of 400 mL cyclohexane and 0.625 g N-100 (Et
     cellulose) at 75.degree. to obtain super absorbent polymer showing water
     absorption 54.4 g/g, water absorption rate 0.9 mL/0.3-g, physiol. salt
    water permeation rate 141.3 mL/min., and stable gel structure.
     super absorbent vinyl polymer prepn; water absorbent vinyl polymer prepn;
     strong gel structure vinyl polymer; alkoxytitanium vinyl monomer polymn
     super absorbent; polyacrylic acid prepn dihydroxytitanium bilactate;
     reverse phase suspension polymn super absorbent
    Dispersing agents
        (for prepn. of vinyl polymers as super absorbents by reverse phase
        suspension polymn. in presence of alkoxytitanium)
     Polymerization
IT
        (reverse-phase, suspension; prepn. of vinyl polymers as super
        absorbents in presence of alkoxytitanium)
    Absorbents
        (water; prepn. of vinyl polymers as super absorbents in presence of
        alkoxytitanium)
     9004-57-3, Ethyl cellulose
IT
     RL: MOA (Modifier or additive use); USES (Uses)
        (N 100, dispersing agents; prepn. of vinyl polymers as super absorbents
       by reverse phase suspension polymn. in presence of alkoxytitanium)
     79110-90-0, Orgatix TC 315
     RL: MOA (Modifier or additive use); USES (Uses)
        (Orgatix TC 315; prepn. of vinyl polymers as super absorbents in
       presence of alkoxytitanium)
     36673-16-2, TEAT
IT
    RL: MOA (Modifier or additive use); USES (Uses)
        (TEAT; prepn. of vinyl polymers as super absorbents in presence of
        alkoxytitanium)
     160047-67-6
IΤ
     RL: MOA (Modifier or additive use); USES (Uses)
        (TLA-A 50; prepn. of vinyl polymers as super absorbents in presence of
        alkoxytitanium)
     9004-82-4, Emal E 27C
                            37318-31-3, Ryoto Sugar Ester S 570 38517-37-2,
     Amisoft MS 11
     RL: MOA (Modifier or additive use); USES (Uses)
        (dispersing agents; prepn. of vinyl polymers as super absorbents by
        reverse phase suspension polymn. in presence of alkoxytitanium)
                  80833-82-5P
                                124701-97-9P
                                              194475-57-5P
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (prepn. of vinyl polymers as super absorbents in presence of
        alkoxytitanium)
IT
     5593-70-4, B-1
                     80778-56-9, TAT
     RL: MOA (Modifier or additive use); USES (Uses)
        (prepn. of vinyl polymers as super absorbents in presence of
        alkoxytitanium)
REFERENCE 7
AN
     112:160374 CA
ΤI
    Hygroscopic fibers for medical and agricultural materials
IN
     Kawame, Toshimitsu; Nozawa, Hiroshi; Kono, Naotake
PΑ
     Kuraray Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 4 pp.
     CODEN: JKXXAF
DT
    Patent
     Japanese
LA
     ICM D01F006-52
     ICS A41B013-02; D01D005-04
ICA
    A61F013-18; C08L033-02; D04H001-42
     40-2 (Textiles and Fibers)
     Section cross-reference(s): 19, 63
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
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                                          ______
PI JP 01260014 A2 19
PRAI JP 1988-86714 19880407
                           19891017
                                          JP 1988-86714 19880407
    The title fibers are prepd. by forming fibers from mixts. comprising
     (meth)acrylic polymers with the degree of neutrality 0.2-0.95 and
    polyepoxy compds. or polyamines and then heat treating the fibers.
     acrylic acid homopolymers 100, NaOH 41.6, and H2O 1274 parts were mixed to
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give a polymer with the degree of neutrality 0.75. Glycerol diglycidyl
     ether (0.3 part) was added, and the mixt. was dried in a compact spray
     drier for 20-305 at 30,000 rpm and heat treated 1 h at 120.degree. to give
     hygroscopic short fibers with water absorption ratio 220.
     acrylic fiber hygroscopic manuf; acrylic acid copolymer fiber hygroscopic
     Synthetic fibers, polymeric
     RL: USES (Uses)
        (acrylic acid-aziridine, sodium salts, hygroscopic, manuf. of)
     Synthetic fibers, polymeric
     RL: USES (Uses)
        (acrylic acid-glycerol diglycidyl ether, sodium salts, hygroscopic,
        manuf. of)
     Synthetic fibers, polymeric
    RL: USES (Uses)
        (acrylic acid-polyethylene glycol diglycidyl ether, sodium salts,
        hygroscopic, manuf. of)
    Medical goods
        (sanitary napkins, hygroscopic (meth)acrylic acid copolymer fibers for)
                  125193-57-9P
                                 126142-89-0P
     80833-82-5P
     RL: PREP (Preparation)
        (fiber, hygroscopic, manuf. of)
REFERENCE 8
     96:105407 CA
    Cooling agents
     Showa Denko K. K., Japan
     Jpn. Kokai Tokkyo Koho, 7 pp.
    CODEN: JKXXAF
    Patent
     Japanese
    C09K005-00
     38-3 (Plastics Fabrication and Uses)
     Section cross-reference(s): 17
FAN.CNT 1
                    KIND DATE
                                         APPLICATION NO. DATE
     PATENT NO.
     _____
                     _ - - -
                           -----
                                           -----
    JP 56090881
JP 61004867
                    A2
                            19810723
                                           JP 1979-166925
                                                            19791224
                     B4
                            19860213
PRAI JP 1979-166925 19791224
     Cooling agents contg. H2O and Na salt of a copolymer of (meth)acrylic acid
     with polyethylene glycol diglycidyl ether (I), bisphenol A-epichlorohydrin
     copolymer, or epichlorohydrin-phthalic acid copolymer and optionally with
     an ethylenic monomer do not freeze at < 0.degree. and useful for
    preservation of food. Thus, 10 g acrylic acid was polymd. with 0.05 g I
     in the presence of 21.8 mL 7N NaOH to give a polymer salt (II)
     [80833-82-5] with water absorption ratio 166. A compn. contg. H2O 100,
     ethylene glycol [107-21-1] 17.6, and II 1 part was stored in a
     refrigerator at -20.degree. to give a soft nonsolid compn., whereas
     solidification occurred for a similar compn. contg. polyacrylic acid Na
     salt instead of II at -10.degree..
     acrylic polymer antifreeze coolant; polyoxyethylene ether antifreeze
     coolant; coolant nonfreezing food preservation
        (preservation of, cooling agents for)
     Antifreeze substances
        (sodium salts of (meth)acrylic copolymers with difunctional epoxy
        compds., for coolants)
     80833-82-5
     RL: USES (Uses)
        (antifreeze agents, for coolants for food preservation)
     107-21-1, uses and miscellaneous
     RL: USES (Uses)
        (antifreeze compns. contq., for coolants)
     ANSWER 6 OF 6 REGISTRY COPYRIGHT 2006 ACS on STN
     58782-18-6 REGISTRY
     Entered STN: 16 Nov 1984
     Poly(oxy-1,2-ethanediyl), .alpha.-(oxiranylmethyl)-.omega.-
     (oxiranylmethoxy) -, homopolymer (9CI) (CA INDEX NAME)
OTHER NAMES:
    Denacol 821
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Denacol EX 821
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CN
    Denacol EX 830
CN
    Denacol EX 831
CN
    Denacol EX 832
CN
       ***Denacol EX 841***
    Denacol EX 850
CN
    Denacol EX 861
CN
    Epikote YED 205
CN
CN
    Epiol E 1000
    Epiol E 400
CN
    Epiol PE 06
CN
CN
    Epolite 1000E
CN
    Epolite 200E
CN
    Epolite 400E
CN
    NER 010
CN
    Nonaethylene glycol diglycidyl ether polymer
    PEGE 400
CN
CN
     Poly(nonaethylene glycol diglycidyl ether)
     Polyethylene glycol diglycidyl ether homopolymer
CN
CN
     Polyethylene glycol diglycidyl ether polymer
CN
     Polyethylene oxide diglycidyl ether homopolymer
     SR 8EG
CN
     SR 8EGS
CN
    UE 101
CN
    YD 716
CN
CN
    YED 205
CN
    Yukikoto E 1080
    Yukikoto E 394
CN
    Yukikoto E 587
CN
    59976-18-0, 105808-78-4, 70644-81-4, 70852-30-1, 148499-22-3, 82446-93-3
DR
MF
     ((C2 H4 O)n C6 H10 O3)x
CT
    PMS, COM
PCT
    Epoxy resin, Polyether
    STN Files:
                 AGRICOLA, CA, CAPLUS, CASREACT, PIRA, TOXCENTER, USPAT2,
LC
      USPATFULL
DT.CA CAplus document type: Conference; Journal; Patent
      Roles from patents: ANST (Analytical study); BIOL (Biological study);
RL.P
       PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or
       reagent); USES (Uses)
      Roles for non-specific derivatives from patents: BIOL (Biological
RLD.P
       study); PREP (Preparation); PRP (Properties); USES (Uses)
      Roles from non-patents: BIOL (Biological study); PREP (Preparation);
RL.NP
       PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES
       (Uses)
Ring System Data
Elemental | Elemental | Size of | Ring System |
                                            Ring
                                                       RID
Analysis |Sequence | the Rings | Formula
                                         Identifier Occurrence
                                 RF
                                                 Count
  EΑ
         ES
                | SZ |
                                        RID
______+
                            C20
                                                   |2
         OC2
                  | 3
                                        1.30.1
C20
     CM
          1
     CRN
         26403-72-5
     CMF
          (C2 H4 O)n C6 H10 O3
     CCI
         PMS
/ Structure 14 in file .gra /
            217 REFERENCES IN FILE CA (1907 TO DATE)
             30 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            217 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE 1
     144:43269 CA
AN
     Manufacture of electrophoretic display microcapsule in aqueous medium in
TI
     the presence of ion-exchange resin
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Miyazaki, Atsushi; Ito, Akio; Kushino, Mitsuo
PA
     Seiko Epson Corp., Japan; Nippon Shokubai Co., Ltd.
SO
     Jpn. Kokai Tokkyo Koho, 15 pp.
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
IC
     ICM G02F001-167
     ICS B01J013-20; G02F001-17
CC
     74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 38
FAN.CNT 1
                   KIND DATE
     PATENT NO.
                                         APPLICATION NO. DATE
PI JP 2005338190 A2 20051208 JP 2004-153791 20040524
PRAI JP 2004-153791 20040524
AB Disclosed /-
     Disclosed is a process comprising a step of forming an electrophoretic
     display microcapsule in an aq. medium in the presence of ion-exchange
     resin. As the ion-exchange resin, a strong acid-type pos. ion-exchange
     resin and a strong base-type neg. ion-exchange resin are used together.
     The microcapsule has a polyethylene glycol chain bonded on the surface.
ST
     electrophoresis electrophoretic display microcapsule ion exchange resin
IT
     Optical imaging devices
        (electrophoretic; manuf. of electrophoretic display microcapsule in aq.
        medium in presence of ion-exchange resin)
IT
     Ion exchangers
    Microcapsules
        (manuf. of electrophoretic display microcapsule in aq. medium in
        presence of ion-exchange resin)
IT
     Electrophoresis apparatus
        (optical imaging; manuf. of electrophoretic display microcapsule in aq.
        medium in presence of ion-exchange resin)
     58782-18-6, Denacol EX 841 465538-53-8, Diaion TSA 1200
IT
                                                                870778-30-6,
     Duolite SC 100
    RL: CPS (Chemical process); NUU (Other use, unclassified); PEP (Physical,
     engineering or chemical process); PROC (Process); USES (Uses)
        (manuf. of electrophoretic display microcapsule in ag. medium in
        presence of ion-exchange resin)
REFERENCE 2
AN
     143:441307 CA
ΤI
     Incombustible composition and synthetic resin foam premixes prepared
    thereby
IN
     Tamai, Ryoichi; Okamoto, Satoru; Hibino, Yasuo
PA
     Central Glass Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 9 pp.
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
    ICM C09K003-00
IC
     ICS C08G018-00; C08J009-14; C09K005-06; C11D007-50; C08G101-00;
         C08L075-04
CC
    37-6 (Plastics Manufacture and Processing)
     Section cross-reference(s): 38
FAN.CNT 1
     PATENT NO.
                  KIND DATE
                                    APPLICATION NO. DATE
     -----
                                          -----
PΤ
    JP 2005307062 A2 20051104
                                          JP 2004-127615 20040423
PRAI JP 2004-127615 20040423
    An incombustible compn. comprises 30-80 wt.% 1,1,2,2-tetrafluoroethyl Me
    ether, 20-70 wt.% 1,1,1,3,3-pentafluoropropane, glycidyl ether-type
     stabilizer, such as N-methylpyrrolidone. Premix to produce polyurethane
    and/or polyisocyanate foams comprises blowing agent, polyols, catalysts,
     and other additives, and the blowing agent is the above incombustible
    compn. Polyols and polyisocyanate react in the presence of blowing agents
     to produce polyurethane or polyisocyanate foams. Thus,
    1,1,2,2-tetrafluoroethyl Me ether and 1,1,1,3,3-pentafluoropropane were
    mixed at a wt. ratio of 20/80 to obtain a incombustible blowing agent that
    can be used in the prodn. or polyester-polyurethane foams from ester
    polyols and isocyanate (Cosmonate M 200) in the presence of polysiloxane
     (SH 193) and allyl glydicyl ether stabilizer.
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ST
     tetrafluoroethylmethyl ether pentafluoropropane blowing agent polyester
    polyurethane polyisocyanate foam
IT
     Polyoxyalkylenes, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (di-Me polysiloxane-, SH 193; incombustible compn. as blowing agent for
        synthetic resin foam premixes prodn.)
IT
     Polysiloxanes, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (di-Me, polyoxyalkylene-, SH 193; incombustible compn. as blowing agent
        for synthetic resin foam premixes prodn.)
IT
     Ethers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (glycidyl; incombustible compn. as blowing agent for synthetic resin
        foam premixes prodn.)
IT
    Blowing agents
     Stabilizing agents
        (incombustible compn. as blowing agent for synthetic resin foam
       premixes prodn.)
    Plastic foams
IT
    RL: PEP (Physical, engineering or chemical process); PYP (Physical
    process); PROC (Process)
        (incombustible compn. as blowing agent for synthetic resin foam
       premixes prodn.)
IT
    Polyurethanes, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (incombustible compn. as blowing agent for synthetic resin foam
       premixes prodn.)
IT
    Polyurethanes, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (polyester-; incombustible compn. as blowing agent for synthetic resin
        foam premixes prodn.)
     9016-87-9D, Cosmonate M 200, reaction products with ester polyols
IT
    RL: PEP (Physical, engineering or chemical process); POF (Polymer in
     formulation); PYP (Physical process); TEM (Technical or engineered
    material use); PROC (Process); USES (Uses)
        (incombustible compn. as blowing agent for synthetic resin foam
       premixes prodn.)
     75-13-8D, Isocyanic acid, esters, polymers
IT
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (incombustible compn. as blowing agent for synthetic resin foam
       premixes prodn.)
     67-68-5, Dimethylsulfoxide, uses 96-48-0, .gamma.-Butyrolactone
IT
     106-92-3, Allyl glycidyl ether 127-19-5, Dimethylacetamide 425-88-7,
     1,1,2,2-Tetrafluoroethyl methyl ether
                                           460-73-1,
     1,1,1,3,3-Pentafluoropropane 872-50-4, NMP, uses
                                                         930-37-0, Epiol M
     2461-15-6, Epiol EH 54847-49-3, Epiol NPG 100 55126-81-3, Epiol E 100
     58782-18-6, Epiol E 400
                             62528-51-2, Epiol L 41 140841-73-2, Epiol BE
    200
    RL: TEM (Technical or engineered material use); USES (Uses)
        (incombustible compn. as blowing agent for synthetic resin foam
       premixes prodn.)
REFERENCE 3
AN
     143:435356 CA
    Cell culture carrier consisting of crosslinked collagen
TI
IN
    Mitsutaka, Toshihiro; Takamatsu, Minori
PA
    Japan Science and Technology Agency, Japan; Ihara & Co., Ltd.
    Jpn. Kokai Tokkyo Koho, 11 pp.
SO
    CODEN: JKXXAF
DТ
    Patent
LA
     Japanese
IC
     ICM C12M003-00
     9-11 (Biochemical Methods)
CC
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
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                                          _____
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    JP 2005312338
                     A2
                           20051110
PΙ
                                          JP 2004-133006 20040428
PRAI JP 2004-133006 20040428
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AB
     A cell culture carrier excellent in stability is provided, which is prepd.
     by crosslinking collagen derived from marine organism with a low mol. wt.
     polyglycidyl ether (e.g., ethyleneglycol diglycidyl ether, propyleneglycol
     diglycidyl ether, polyethyleneglycol diglycidyl ether, polypropyleneglycol
     diglycidyl ether). The cell culture carrier can take a form of film or
     else.
ST
     carrier cell culture collagen crosslinking EGDE
IT
     Animal tissue culture
     Carriers
     Crosslinking
        (cell culture carrier consisting of crosslinked collagen)
IT
     Collagens, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (cell culture carrier consisting of crosslinked collagen)
TT
     Ethers, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (glycidyl; cell culture carrier consisting of crosslinked collagen)
     2224-15-9, Ethyleneglycol diglycidyl ether
TT
                                                16096-30-3, Propyleneglycol
     diglycidyl ether
                      26142-30-3, Polypropyleneglycol diglycidyl ether
     26403-72-5, Polyethyleneglycol diglycidyl ether
                                                      39409-92-2, Epiol P-200
     58782-18-6, Epiol E-400
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cell culture carrier consisting of crosslinked collagen)
REFERENCE 4
AN
     143:348566 CA
TI
    Oily solution for carbon fiber precursor and production of carbon fibers
IN
    Tanaka, Fumihiko; Yamasaki, Katsumi
PA
    Toray Industries, Inc., Japan
SO
    Jpn. Kokai Tokkyo Koho, 17 pp.
    CODEN: JKXXAF
DT
    Patent
     Japanese
LA
     ICM D06M015-53
IC
     ICS D01F009-22
CC
     40-2 (Textiles and Fibers)
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                        APPLICATION NO. DATE
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    JP 2005264361
                     A2 20050929
                                         JP 2004-75824
                                                           20040317
PΙ
                     20040317
PRAI JP 2004-75824
    An oily soln. for carbon fiber precursor contg. <2 wt.% silicon has a
     logarithmic decrement of 0.15-2 at 100-145.degree., and the soln.
     comprises >10 wt.% compds. contg. functional groups selected from radical
     reactive groups, such as vinyl group, isocyanate, and epoxy groups, and
     radical generators. Carbon fiber precursor adheres 0.1-5 wt.% of the
     above oily soln., heat-treated at 200-300.degree. in air, and then
     carbonized at 300-3000.degree. in inert atm. to produce carbon fibers.
    Thus, polyacrylonitrile fibers were immersed in polyethylene qlycol
    diglycidyl ether soln. and then heat treated to provide carbon fibers.
ST
    polyoxyethylene diglycidyl ether polyacrylonitrile carbon fiber
IT
    Acrylic fibers, preparation
    RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical,
     engineering or chemical process); PREP (Preparation); PROC (Process)
        (oily soln. for carbon fiber precursor and carbon fiber prodn.)
IT
    Polyoxyalkylenes, uses
    RL: TEM (Technical or engineered material use); USES (Uses)
        (oily soln. for carbon fiber precursor and carbon fiber prodn.)
IT
    Carbon fibers, processes
    RL: CPS (Chemical process); PEP (Physical, engineering or chemical
    process); PROC (Process)
        (polyacrylonitrile-based; oily soln. for carbon fiber precursor and
        carbon fiber prodn.)
IT
    Polysiloxanes, uses
    RL: TEM (Technical or engineered material use); USES (Uses)
        (polyether-; oily soln. for carbon fiber precursor and carbon fiber
       prodn.)
IT
    Polyethers, uses
    RL: TEM (Technical or engineered material use); USES (Uses)
        (siloxane-; oily soln. for carbon fiber precursor and carbon fiber
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IT
     26570-48-9, Blemmer ADE 600
     RL: TEM (Technical or engineered material use); USES (Uses)
        (Blemmer ADE 150, Blemmer ADE 400; oily soln. for carbon fiber
        precursor and carbon fiber prodn.)
     25852-47-5, Blemmer PDE 200
                                 58782-18-6, Epolite 400E
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (oily soln. for carbon fiber precursor and carbon fiber prodn.)
IT
     94-36-0, Benzoyl peroxide, uses 25322-68-3D, acetyl-terminated
     RL: TEM (Technical or engineered material use); USES (Uses)
        (radical generator; oily soln. for carbon fiber precursor and carbon
        fiber prodn.)
REFERENCE 5
     143:307858 CA
AN
ΤI
     Manufacture of mold-release films for aqueous ceramic slurry coating
    process and the mold-release films therefrom
IN
     Hatta, Akio
PA
     Takemoto Oil and Fat Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 22 pp.
SQ
     CODEN: JKXXAF
    Patent
DT
     Japanese
LA
     ICM C08J007-04
IC
     ICS B05D005-00; B05D007-24; B32B027-00; C09D005-00; C09D183-06;
          C09D183-10; C09D201-00; C08L101-00
     42-13 (Coatings, Inks, and Related Products)
CC
     Section cross-reference(s): 57
FAN.CNT 1
                                      APPLICATION NO. DATE
     PATENT NO.
                    KIND DATE
                                          -----
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PI JP 2005255870 A2 20050922 JP 2004-70284 20040312 PRAI JP 2004-70284 20040312
     Title films are prepd. by applying polymer film surfaces with 0.01-0.5
     g/m2 (solid content) aq. resin solns. contg. crosslinked
     organopolysiloxanes consisting of R1b(OH)cSiOa/2 units (A1) 80-99,
     XeR2f(OH)gSiOd/2 units (A2) 0.5-15, and (Y - Z)iR3j(OH)kSiOh/2 units (A3)
     0.5-5 mol* with 1-75* Y component at [R1-R3 = C1-6] alkyl or Ph; X =
     nonradical polymerizable org. group or epoxy-contg. org. group; Y = vinyl
     polymer block; Z = Si- and Y-connecting divalent org. group; a, d, h = 1-3
     integer; b, e, i = 1 or 2; c, g, k = 0-2 integer; f, j = 0 or 1, with (a + 1)
     b + c) = 4, (d + e + f + g) = 4, (h + i + j + k) = 4]. A polyester film
     was coated with an aq. soln. contg. 30% Nikalac MX 035 and 70%
     polysiloxanes (prepd. from octamethylcyclotetrasiloxane,
     3-glycidoxypropyltrimethoxysilane, 3-methacryloxypropyltrimethoxysilane,
     Et acrylate, Me methacrylate, and glycidyl methacrylate; 90:7:3 A1/A2/A3
     units with 50% acrylic polymer block) to form a spot-free uniform film
     resulting good wetting ability to ag. ceramic slurry and the ceramic layer
     peeling strength of <5 g/100 mm.
ST
     acrylic polysiloxane mold release film ag ceramic slurry process; ceramic
     layer wettability acrylic polysiloxane mold release film
     Alkyd resins
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (Watersol S 123, in solns. for mold-release film formation; manuf. of
        acrylic grafted polysiloxane-based mold-release films for aq. ceramic
        slurry coating process)
IT
     Polysiloxanes, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (acrylic, graft; manuf. of acrylic grafted polysiloxane-based
        mold-release films for aq. ceramic slurry coating process)
IT
     Slurries
        (ceramic, process for coating of, mold-release films for; manuf. of
        acrylic grafted polysiloxane-based mold-release films for aq. ceramic
        slurry coating process)
IT
     Acrylic polymers, uses
     Aminoplasts
     Epoxy resins, uses
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
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prodn.)

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(in solns. for mold-release film formation; manuf. of acrylic grafted
       polysiloxane-based mold-release films for aq. ceramic slurry coating
       process)
IT
     Parting materials
        (mold-release agents; manuf. of acrylic grafted polysiloxane-based
       mold-release films for aq. ceramic slurry coating process)
ΙT
        (slurries, process for coating of, mold-release films for; manuf. of
        acrylic grafted polysiloxane-based mold-release films for ag. ceramic
        slurry coating process)
     9003-08-1, Nikalac MX 035
IT
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (Nikalac MS 17, Nikalac MX 035 and Cymel 303, in solns. for
       mold-release film formation; manuf. of acrylic grafted
       polysiloxane-based mold-release films for aq. ceramic slurry coating
       process)
     58782-18-6, Denacol EX 850
IT
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (Watersol S 123; manuf. of acrylic grafted polysiloxane-based
        mold-release films for aq. ceramic slurry coating process)
     18191-00-9, Sumitex NS 11
                                150139-20-1, Watersol S 751
IT
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (in solns. for mold-release film formation; manuf. of acrylic grafted
       polysiloxane-based mold-release films for aq. ceramic slurry coating
       process)
     171609-52-2P, Ethyl acrylate-glycidyl methacrylate-3-
IT
     qlycidoxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-methyl
     methacrylate-3-(trimethoxysilyl)propyl methacrylate graft copolymer
                   864861-22-3P, Acrylic acid-ethyl acrylate-2-(3,4-
     864861-21-2P
     epoxycyclohexyl)ethyltrimethoxysilane-octaethylcyclotetrasiloxane-styrene-
                                                            864861-24-5P,
     3-(trimethoxysilyl)propyl methacrylate graft copolymer
     Acrylic acid-N, N-dimethylacrylamide-ethyl acrylate-hexylphenylsilanediol-3-
     qlycidoxypropyltrimethoxysilane-methyl methacrylate-methylvinylsilanediol-
     octamethylcyclotetrasiloxane graft copolymer 864861-26-7P, Ethyl
     acrylate-glycidyl methacrylate-3-glycidoxypropyltrimethoxysilane-
     octamethylcyclotetrasiloxane-methyl methacrylate-methylvinylsilanediol
                                    864861-28-9P, Acrylic acid-ethyl
                      864861-27-8P
     graft copolymer
     acrylate-2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane-
     octamethylcyclotetrasiloxane-styrene-methylvinylsilanediol graft copolymer
        864861-29-0P, Acrylic acid-N,N-dimethylacrylamide-ethyl
     acrylate-3-glycidoxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-
     methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate graft copolymer
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (manuf. of acrylic grafted polysiloxane-based mold-release films for
        ag. ceramic slurry coating process)
REFERENCE 6
AN
     Edge barriers comprising liquid absorbent thermoplastics for absorbent
ΤI
     articles
IN
     Toro, Carlo; Digiacomantonio, Marco; Pompei, Enzo; Salone, Fiorello;
     Carlucci, Giovanni
     The Procter & Gamble Company, USA
PA
so
     Eur. Pat. Appl., 20 pp.
     CODEN: EPXXDW
DT
     Patent
LA
     English
IC
     ICM A61F013-15
     38-3 (Plastics Fabrication and Uses)
CC
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                           -----
                                           _____
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                                                           20040323
                     A1 20050928
                                          EP 2004-6923
     EP 1579831
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
                      A1
                           20050928
                                          EP 2004-18581
                                                          20040805
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
     US 2005215967
                               20050929
                                                US 2005-87475
                         A1
                                                                   20050323
     WO 2005094748
                         A1
                               20051013
                                                WO 2005-US10012
                                                                   20050323
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
              CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
          RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
              AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI EP 2004-6923
                        20040323
     Absorbent articles, typically for feminine protection, comprise a
     topsheet, a backsheet, an absorbent element positioned between the
      topsheet and the backsheet, .gtoreq.1 fluid acquisition/distribution layer
     and edge barrier elements comprising a polymeric base material having
     particles of water-insol. water-swellable absorbent material. Estane
     T5410 (polyurethane-hydrophilic thermoplastic polymer) 18%, PEG E400 17%,
     CR00 (adhesive hotmelt) 19%, Aquakeep 10 SH-NF (superabsorbent) 45% and
     Irgnox B 225 1% were mixed to give a hot-melt adhesive for forming the
     edge barrier elements.
     polyurethane rubber sodium polyacrylate hotmelt adhesive
     Urethane rubber, uses
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
         (Estane T5410; edge barriers comprising liq. absorbent thermoplastics
         for absorbent articles)
     Absorbents
         (edge barriers comprising liq. absorbent thermoplastics for absorbent
         articles)
     Epoxy resins, uses
     RL: MOA (Modifier or additive use); USES (Uses)
         (edge barriers comprising liq. absorbent thermoplastics for absorbent
         articles)
     Medical goods
         (sanitary napkins; edge barriers comprising liq. absorbent
         thermoplastics for absorbent articles)
     9003-04-7, Poly(acrylic acid), sodium salt
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
         (crosslinked; edge barriers comprising liq. absorbent thermoplastics
         for absorbent articles.)
     85595-35-3, Aqua Keep 10SH
                                      675129-39-2, CR 00
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
         (edge barriers comprising liq. absorbent thermoplastics for absorbent
         articles)
     58782-18-6, PEGE400
     RL: MOA (Modifier or additive use); USES (Uses)
         (plasticizer; edge barriers comprising liq. absorbent thermoplastics
         for absorbent articles)
RE.CNT
               THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Ahmed, S; US 6534572 B1 2003 CAPLUS
(2) Decowski, S; US 4718898 A 1988
(3) Koslow, E; US 6015608 A 2000
(4) Leptick, S; US 6403857 B1 2002
(5) McNeil Ppc Inc; EP 1013291 A 2000 CAPLUS
(6) Petryk, T; US 2004127883 A1 2004
(7) Procter & Gamble; WO 9734557 A 1997
(8) Procter & Gamble; WO 03049777 A 2003
(9) Procter & Gamble; WO 03053314 A 2003
REFERENCE 7
     143:238759 CA
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Multicolor thermal printing materials giving images with high gloss and

ST

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IT

ΙT

IT

ΙT

AN

ΤI

IN

PΑ

optical density

Tsurumi, Mitsuyuki

Fuji Photo Film Co., Ltd., Japan

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SO
     Jpn. Kokai Tokkyo Koho, 52 pp.
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
     ICM B41M005-26
TC
     74-10 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 38
FAN.CNT 1
     PATENT NO.
                   KIND DATE
                                         APPLICATION NO. DATE
                     ----
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                                           -----
PI JP 2005231184 A2 200
PRAI JP 2004-42914 20040219
                                          JP 2004-42914
                     A2 20050902
                                                            20040219
     The materials, having thermal printing layers on substrates, include
     .gtoreq.1 layers contg. binders and epoxy compds. except for undercoating
     layers on the thermal printing layer side.
     thermal printing material binder epoxy resin crosslinking; binder gelatine
ST
     thermal printing material diazo
    Gelatins, uses
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (Nitta 750, crosslinked; multicolor thermal printing materials
        including layers contg. binders and epoxy resins)
     Polyethers, reactions
IT
     Polyoxyalkylenes, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (epoxy, crosslinking agent; multicolor thermal printing materials
        including layers contg. binders and epoxy resins)
    Binders
IT
     Crosslinking agents
     Thermal printing materials
        (multicolor thermal printing materials including layers contg. binders
        and epoxy resins)
IT
     Epoxy resins, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (polyether-, crosslinking agent; multicolor thermal printing materials
        including layers contg. binders and epoxy resins)
     Epoxy resins, reactions
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (polyoxyalkylene-, crosslinking agent; multicolor thermal printing
        materials including layers contg. binders and epoxy resins)
IT
     58782-18-6
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (Denacol EX 832, Denacol EX 861, crosslinking agent; multicolor thermal
        printing materials including layers contg. binders and epoxy resins)
IT
                   557104-88-8
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coupler; multicolor thermal printing materials including layers contg.
        binders and epoxy resins)
                                  54140-67-9, Denacol EX 145
IT
     29317-04-2, Denacol EX 811
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (crosslinking agent; multicolor thermal printing materials including
        layers contg. binders and epoxy resins)
IT
     67928-21-6
                  159526-16-6
                                473910-87-1
     RL: TEM (Technical or engineered material use); USES (Uses)
        (diazonium compd.; multicolor thermal printing materials including
        layers contg. binders and epoxy resins)
REFERENCE 8
AN
     143:194744 CA
ΤI
     Thermoplastic elastomer compositions with good melt fluidity, heat,
     weather, chemical, and wear resistance, adhesion, and flexibility for
     molded articles
     Taniguchi, Akio; Chiba, Takeshi
IN
PA
     Kaneka Corporation, Japan
SO
     PCT Int. Appl., 57 pp.
     CODEN: PIXXD2
DТ
     Patent
LΑ
     Japanese
IC
     ICM C08G059-42
     ICS B29C041-18; B60R013-02; B29K021-00; B29L031-58
CC
     37-6 (Plastics Manufacture and Processing)
```

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Section cross-reference(s): 38, 39
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                             APPLICATION NO. DATE
                                              -----
     ------
                             -----
                                         WO 2005-JP824 20050124
     WO 2005073270
                             20050811
PT
                      A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
PRAI JP 2004-23898
                       20040130
     Title compns. comprises (A) an acrylic block copolymer composed of a
     methacrylic polymer block and an acrylic polymer block and (B) a compd.
     having .gtoreq.11.1 functional groups, wherein .gtoreq.1 of the
     methacrylic polymer block and acrylic polymer block has a functional
     group. Thus, 1664 g Bu acrylate was polymd. in the presence of copper
     bromide, di-Et 2,5-dibromoadipate, and pentamethyldiethylenetriamine,
     tert-Bu methacrylate 82.8, Me methacrylate 927, Bu acrylate 202, copper
     chloride 9.4, pentamethyldiethylenetriamine 1.98 g were added therein when
     the polymn. conversion was reached 94.6% and polymd. to give a block
     copolymer with Mn 72,200 and polydispersity 1.42, 45 g of which was mixed
     with 0.09 g Iranox 1010 and kneaded at 240.degree. for 20 min, 100 parts
     of the resulting acid anhydride and carboxy group-contg. block copolymer
     was mixed with Epikote 828 10, carbon black 0.5, and Irganox 1010 0.3
     parts, kneaded, and heat-pressed at 200.degree. to give a test piece with
     good ethanol, oil, and heat resistance, adhesion to polyurethanes,
     moldability, insolubles content 0% before molding and 64% after molding.
     thermoplastic elastomer compn melt fluidity adhesion; heat weather chem
ST
     wear resistance molded article; butyl acrylate butyl methacrylate methyl
     methacrylate block copolymer cyclization; block copolymer Epikote compn
IT
     Heat-resistant materials
        (abrasion-resistant; thermoplastic elastomer compns. with good melt
        fluidity, heat, weather, chem., and wear resistance, adhesion, and
        flexibility for molded articles)
IT
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (acrylic; thermoplastic elastomer compns. with good melt fluidity,
        heat, weather, chem., and wear resistance, adhesion, and flexibility
        for molded articles)
     Acrylic polymers, uses
IT
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (block; thermoplastic elastomer compns. with good melt fluidity, heat,
        weather, chem., and wear resistance, adhesion, and flexibility for
        molded articles)
ΙT
     Heat-resistant materials
        (chem. resistant; thermoplastic elastomer compns. with good melt
        fluidity, heat, weather, chem., and wear resistance, adhesion, and
        flexibility for molded articles)
     Polyoxyalkylenes, uses
IT
     RL: MOA (Modifier or additive use); USES (Uses)
        (epoxy; thermoplastic elastomer compns. with good melt fluidity, heat,
        weather, chem., and wear resistance, adhesion, and flexibility for
        molded articles)
IT
     Abrasion-resistant materials
     Chemically resistant materials
        (heat-resistant; thermoplastic elastomer compns. with good melt
        fluidity, heat, weather, chem., and wear resistance, adhesion, and
        flexibility for molded articles)
IT
     Automobiles
        (interior parts; thermoplastic elastomer compns. with good melt
        fluidity, heat, weather, chem., and wear resistance, adhesion, and
        flexibility for molded articles)
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IT

Epoxy resins, uses

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RL: MOA (Modifier or additive use); USES (Uses)
        (polyoxyalkylene-; thermoplastic elastomer compns. with good melt
        fluidity, heat, weather, chem., and wear resistance, adhesion, and
        flexibility for molded articles)
     Molded plastics, properties
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
        (thermoplastic elastomer compns. with good melt fluidity, heat,
       weather, chem., and wear resistance, adhesion, and flexibility for
       molded articles)
    Thermoplastic rubber
    RL: TEM (Technical or engineered material use); USES (Uses)
        (thermoplastic elastomer compns. with good melt fluidity, heat,
       weather, chem., and wear resistance, adhesion, and flexibility for
       molded articles)
     741269-97-6P, Butyl acrylate-tert-butyl methacrylate-methyl methacrylate
     triblock copolymer
                        862012-15-5P
                                       862012-16-6P
     RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical,
     engineering or chemical process); PREP (Preparation); PROC (Process)
        (precursor; thermoplastic elastomer compns. with good melt fluidity,
       heat, weather, chem., and wear resistance, adhesion, and flexibility
        for molded articles)
     112-27-6DP, Triethylene glycol, reaction products with epoxy-contg.
     acrylic block copolymers 25068-38-6DP, Epikote 828, reaction products
    with acid anhydride and carboxy group-contg. acrylic block copolymers
     58782-18-6DP, Epiol E 400, reaction products with acid anhydride and
     carboxy group-contg. acrylic block copolymers
                                                   741269-97-6DP, Butyl
     acrylate-tert-butyl methacrylate-methyl methacrylate triblock copolymer,
     cyclized, reaction products with epoxy compds. 862012-15-5DP, cyclized,
     reaction products with epoxy compds. 862012-16-6DP, cyclized, reaction
                                      862090-40-2DP, Epiol E 200, reaction
    products with triethylene glycol
    products with acid anhydride and carboxy group-contg. acrylic block
     copolymers
    RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (thermoplastic elastomer compns. with good melt fluidity, heat,
       weather, chem., and wear resistance, adhesion, and flexibility for
       molded articles)
RE.CNT 4
             THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Kaneka Corp; JP 2000169665 A 2000 CAPLUS
(2) Kaneka Corp; EP 1398353 A1 2002 CAPLUS
(3) Kaneka Corp; JP 200260449 A 2002
(4) Kaneka Corp; WO 200292696 A1 2002
REFERENCE 9
    143:8810 CA
    Manufacture of microcapsules with controlled shell thickness
    Kushino, Mitsuo; Kikuta, Teruo; Matsumoto, Makoto
    Nippon Shokubai Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 18 pp.
    CODEN: JKXXAF
    Patent
    Japanese
    ICM B01J013-06
    38-3 (Plastics Fabrication and Uses)
FAN.CNT 1
                   KIND DATE
    PATENT NO.
                                         APPLICATION NO. DATE
                                          -----
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                    ----
                                                          -----
                     A2
    JP 2005131513
                           20050526
                                         JP 2003-369539 20031029
PRAI JP 2003-369539
                     20031029
    In manuf. of the microcapsules by dispersing hydrphobic core substances in
    aq. media contg. H2O-sol. surfactants and adding H2O-sol. compds. to the
    media, R1(CH2CH2O)nXR2 (I; R1 = C5-25 aliph. or arom. hydrophobic group;
    R2 = 300-100,000-Mw polyamine or polycarboxylic acid group; n = 3-85; X = 3-85
    direct link, group derived from amino-, imino-, and/or carboxy-reactive
    group) are used as the H2O-sol. surfactants, compds. having epoxy or
    episulfide group are used as the H2O-sol. compds., and the shells are
    formed by reaction between I and the H2O-sol. compds. Thus, 14.5 g
    polyethylenimine (Epomin SP 006) was treated with 97.2 g of 25% aq. lauryl
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polyoxyethylene glycidyl ester (sic) in H2O to give a 25% solid dispersant

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(A1). Then, an aq. soln. contg. 10 g polyglycerol polyglycidyl ether
(Denacol EX 521) was added dropwise to an aq. suspension of hydrophobic
blue dye contg. 40 g A1, mixed with Na diethyldithiocarbamate trihydrate,
kept at 30.degree. for 2 h, aged at 70.degree., and cooled to give a
microcapsule dispersion showing particle size 65.0 .mu.m, shell thickness
3.12 .mu.m, and good capsule strength.
polyoxyethylene polyethylenimine surfactant epoxide microcapsule formation
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
   (acrylic, graft, reactive dispersant; manuf. of microcapsules with
   controlled shell thickness)
Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (acrylic-epoxy; manuf. of microcapsules with controlled shell
   thickness)
Epoxy resins, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (acrylic-polyoxyalkylene-; manuf. of microcapsules with controlled
   shell thickness)
Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (epoxy-polyamine-; manuf. of microcapsules with controlled shell
   thickness)
Polyamines
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (epoxy-polyoxyalkylene-; manuf. of microcapsules with controlled shell
   thickness)
Microcapsules
   (manuf. of microcapsules with controlled shell thickness)
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
   (polyamine-, graft, reactive dispersant; manuf. of microcapsules with
   controlled shell thickness)
Epoxy resins, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (polyamine-polyoxyalkylene-; manuf. of microcapsules with controlled
   shell thickness)
Polyamines
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
   (polyoxyalkylene-, graft, reactive dispersant; manuf. of microcapsules
   with controlled shell thickness)
Dispersing agents
   (reactive; manuf. of microcapsules with controlled shell thickness)
71228-86-9DP, Denacol 614B, reaction products with polyoxyalkylene-contg.
polyamines or polycarboxylic acids
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (Denacol 614B; manuf. of microcapsules with controlled shell thickness)
9002-98-6DP, reaction products with lauryl or Ph polyoxyethylene glycidyl
ether and epoxides
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (Epomin SP 006, Epomin SP 018; manuf. of microcapsules with controlled
   shell thickness)
197646-52-9P, Acrylic acid-ethylene oxide graft copolymer phenyl ether
851952-56-2P, Aziridine-oxirane graft copolymer lauryl ether
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
   (comprised of actual and assumed monomers, reactive dispersant; manuf.
   of microcapsules with controlled shell thickness)
9003-01-4DP, Aqualic HL 415, reaction products with Ph polyoxyethylene
glycidyl ether and epoxides
                              39409-92-2DP, Denacol EX 920, reaction
products with polyoxyalkylene-contg. polyamines or polycarboxylic acids
54140-67-9DP, Polyethylene glycol phenyl glycidyl ether, reaction products
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with poly(acrylic acid) and epoxides 58782-18-6DP, Denacol EX 841, reaction products with polyoxyalkylene-contg. polyamines or polycarboxylic acids 86630-59-3DP, Polyethylene glycol glycidyl lauryl ether, reaction products with polyethylenimine and epoxides 121630-71-5DP, Denacol EX 521, reaction products with polyoxyalkylene-contg. polyamines or polycarboxylic acids

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of microcapsules with controlled shell thickness)

REFERENCE 10

AN 142:483707 CA

TI Recording sheet for image recording with good resistance to curling and cockling and method of recording

IN Ogino, Takashi; Hosoi, Kiyoshi; Koga, Chizuru; Matsuda, Tsukasa

PA Fuji Xerox Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 26 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM B41J002-01

NCL 347105000

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

I TALL	-111 + +				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 2005104947	A1	20050519	US 2004-971788	20041025
	JP 2005171472	A2	20050630	JP 2004-206848	20040714
PRAI	JP 2003-386591	20031117			
	JP 2004-206848	20040714			

The recording sheet comprises a cellulose pulp, and has a water retention value C of 50-100% and a wet tensile strength residual ratio R in transverse direction of 5-20%, where C and R are the products of [(A-B)/B]x100 and of (Sw/S)x100, resp., provided that A represents a wt. (g) of the sheet in wet state after the sheet is subjected to centrifugal dehydration, B represents an abs. dry wt. (g) of the sheet, Sw represents a wet tensile strength (kN/m) of the sheet and S represents a tensile strength (kN/m) of the sheet in dry state. The above properties can be attained through controlling the role of H bonds in paper, e.g., through selective sizing for enhancing the moisture independence.

ST curling cockling resistance recording paper manuf

IT Coating materials

Electrophotographic paper

Sizes (agents)

(manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

IT Polyesters, uses

Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses) (manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

IT Surfactants

(nonionic; manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

IT Ink-jet recording sheets

(paper; manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

IT Paper

(printing, ink-jet; manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

IT Paper

(printing; manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

IT 22829-17-0, Ammonium zirconium carbonate

RL: TEM (Technical or engineered material use); USES (Uses)
(Caltabond; manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

IT 124671-41-6, Fibran 81

RL: TEM (Technical or engineered material use); USES (Uses) (internal size; manuf. of paper for image recording with good resistance to curling and cockling and method of recording)

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IT
     9005-25-8D, Starch, oxidized 9014-85-1D, Surfynol 440, nonionic
                58782-18-6D, Epiol E 1000, oxidized 82200-41-7, Vylonal MD
           140841-73-2, Epiol BE 200 288073-11-0, Carbodilite V 02L2
     851959-11-0, Emalex GMS-B 851959-14-3, Emalex SPIS 100
     Emalex RWL 150
                    851959-46-1, Resamine W 100
     RL: TEM (Technical or engineered material use); USES (Uses)
        (manuf. of paper for image recording with good resistance to curling
       and cockling and method of recording)
IT
     9002-89-5, PVA 102
                        100359-21-5, Ace A
    RL: TEM (Technical or engineered material use); USES (Uses)
        (surface size; manuf. of paper for image recording with good resistance
       to curling and cockling and method of recording)
=> s mh-7210
          377 MH
           14 MHS
          391 MH
                (MH OR MHS)
          193 7210
            0 MH-7210
L2
                (MH(W)7210)
=> s sd-101
         1339 SD
           50 SDS
         1389 SD
                (SD OR SDS)
        24562 101
L3
            3 SD-101
                (SD(W)101)
=> d all 1-3
    ANSWER 1 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN
L_3
RN
    203460-65-5 REGISTRY
ED
    Entered STN: 01 Apr 1998
      ***SD 101 (9CI)***
CN
                         (CA INDEX NAME)
ENTE An acrylic Latex (Sanyo Chemical Co.)
    Unspecified
MF
CI
    PMS, MAN
PCT Manual registration
SR
    CA
                 CA, CAPLUS, USPATFULL
LC
    STN Files:
DT.CA CAplus document type: Patent
      Roles from patents: USES (Uses)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
              3 REFERENCES IN FILE CA (1907 TO DATE)
              3 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE 1
AN
    139:330083 CA
    Multilayer mirror for organic electroluminescent device and its production
TI
    method of luminous device
TN
    Lu, Tung-kuei; Wang, Wei-hsiang
PA
    Laite Science and Technology Co., Ltd., Taiwan
SO
    Jpn. Kokai Tokkyo Koho, 5 pp.
    CODEN: JKXXAF
DТ
    Patent
LΑ
    Japanese
IC
    ICM H05B033-10
    ICS H05B033-02; H05B033-14; H05B033-22; H05B033-24
CC
    73-11 (Optical, Electron, and Mass Spectroscopy and Other Related
    Properties)
FAN.CNT 1
                     KIND DATE
    PATENT NO.
                                         APPLICATION NO. DATE
    -----
                                         -----
                     ____
                          _____
    JP 2003297571 A2
                                         JP 2003-89737
                           20031017
PT
                                                         20030328
                    Α
                                        CN 2002-142925
    CN 1484349
                           20040324
                                                          20020916
                    Α
    CN 1484330
                           20040324
                                         CN 2002-142926
                                                          20020916
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DE 10310341 A1 20031023 DE 2003-10310341 20030310 NL 1022900 A1 20030930 NL 2003-1022900 20030312 PRAI TW 2002-91106448 20020329 The invention relates to a multilayer mirror, suited for use as a components of a microcavity structure in an org. electroluminescent device, wherein the buffer layer is fabricated between the transparent substrate and the multilayer mirror for enhancing the adhesion. multilayer mirror org electroluminescent device ST IT Optical resonators (microcavity structure; multilayer mirror for org. electroluminescent device of luminous device) IT Coating materials (multilayer mirror for org. electroluminescent device of luminous device) Mirrors IT (multilayer; multilayer mirror for org. electroluminescent device of luminous device) IT Electroluminescent devices (org.; multilayer mirror for org. electroluminescent device of luminous device) 203460-65-5, SD 101 IT RL: TEM (Technical or engineered material use); USES (Uses) (buffer layer; multilayer mirror for org. electroluminescent device of luminous device) 12033-89-5, Silicon nitride, uses 7631-86-9, Silica, uses IT RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (multilayer mirror for org. electroluminescent device of luminous device) REFERENCE 2 AN 129:21522 CA Optical disk with improved durability and its manufacture ΤI Harada, Mitsuru; Menya, Kazunori; Oobayashi, Takashi IN Matsushita Electric Industrial Co., Ltd., Japan PA Jpn. Kokai Tokkyo Koho, 7 pp. SO CODEN: JKXXAF DT Patent LA Japanese IC ICM G11B007-24 ICS B29C065-48; G11B007-26; B29L017-00 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----- ----- ---- ----------JP 10112072 A2 19980428 JP 1996-266906 19961008 PRAI JP 1996-266906 19961008 The title disk consists successively of a 1st substrate, a 1st recording layer, an interlayer, a silicone adhesive layer, an interlayer, a 2nd recording layer, and a 2nd substrate. The disk shows improved durability at tropical conditions. optical disk silicone adhesive layer; compact disk silicone adhesive layer STIT Polysiloxanes, uses RL: DEV (Device component use); USES (Uses) (KE 1820, NWV 37, Three Bond 3165; optical disk with improved durability) IT Optical ROM disks Optical disks (optical disk with improved durability) 144046-69-5, Daicure Clear SD 17 203460-65-5, SD 101 IT RL: DEV (Device component use); USES (Uses) (optical disk with improved durability)

REFERENCE 3

AN 128:198649 CA

TI Thermal recording body and production method thereof

IN Wakamatsu, Kiichiro

PA Mitsubishi Paper Mills Limited, Japan

SO PCT Int. Appl., 27 pp.

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Patent
LA
     Japanese
     ICM B41M005-30
ICS B41M005-40
TC
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 39
FAN.CNT 1
                 KIND DATE
     PATENT NO.
                                          APPLICATION NO. DATE
                                          -----
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     WO 9806589 A1
                                          WO 1997-JP2761
PΙ
                            19980219
                                                            19970807
        W: DE, JP, US
     DE 19780794 T
                            19990311
                                          DE 1997-19780794 19970807
     DE 19780794
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                            20010613
     JP 3565564
US 6071851
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                                           JP 1997-540750
                                                            19970807
                     Α
                            20000606
                                          US 1998-43150
                                                            19980313
PRAI JP 1996-209654 19960808
WO 1997-JP2761 19970807
     A thermal recording body has high sensitivity and high whiteness. In a
AB
     thermal recording body including an intermediate layer disposed between a
     support and a recording layer, a high sensitivity thermal recording body
     can be produced by using a latex having a heat-sensitive gelling property
     as a bonding agent of the intermediate layer and setting the pH value of a
     soln. of the intermediate layer at 7.0 or more and the liq. temp. at the
     time of adjustment and prodn. at not higher than 20.degree. of the gelling
     temp. A thermal recording body having high whiteness and extremely high
     printability can be obtained by adding a non-crosslinking type acrylic
     alk. tackifier to the coating soln. of the intermediate layer.
     thermal recording intermediate layer; acrylic alk tackifier thermal
ST
     recording
IT
     Thermal printing
     Thermographic copying
        (acrylic alk. tackifier in intermediate layer of thermal recording
        body)
IT
     Acrylic polymers, uses
     RL: DEV (Device component use); USES (Uses)
        (latex; tackifier; acrylic alk. tackifier in intermediate layer of
        thermal recording body)
     170427-79-9, SN thickener 920
                                    174593-64-7, SN thickener 922
IT
                                                                     203460-65-
     5, SD 101
     RL: DEV (Device component use); USES (Uses)
        (tackifier; acrylic alk. tackifier in intermediate layer of thermal
        recording body)
RE.CNT 2
              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Mitsubishi Paper Mills Ltd; JP 06-340174 A 1994
(2) Ricoh Co Ltd; JP 05-139035 A 1993 CAPLUS
L3
     ANSWER 2 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN
RN
     66770-70-5 REGISTRY
ED
     Entered STN: 16 Nov 1984
CN
       ***Rhodopas SD 101 (9CI)***
                                     (CA INDEX NAME)
ENTE An acrylate-styrene copolymer latex
MF
     Unspecified
CI
     PMS, MAN
PCT Manual registration
LC
     STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: USES (Uses)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
REFERENCE 1
AN
     89:112511 CA
     The problems posed by the use of glossy paints based on aqueous
TI
     dispersions of synthetic polymers
```

Cent. Rech. Aubervilliers, Rhone-Poulenc Ind., Aubervilliers, Fr. Double Liaison - Chimie des Peintures (1976), 23(248), 153-60

CODEN: PIXXD2

DT

ΑIJ

CS

SO

Sebban, Guy

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DT
     Journal
LΑ
     French
CC
     42-7 (Coatings, Inks, and Related Products)
AB
     The influence of formulation parameters on the properties of glososy
     paints based on aq. dispersions is discussed. Pigment vol. concn.,
     dispersing agent, solvent, particle size and min. film-forming temp. of
     the binder affect the gloss in aq. latex paints. Two glossy latex paint formulations based on Rhodopas AV 501 (vinyl acetate-vinyl versatate
     copolymemr) [66770-71-6] and Rhodopas SD 101 [66770-70-5]
     (acrylate-styrene copolymer) are presented.
     gloss aq latex paint; vinyl compd polymer latex paint; styrene acrylate
ST
     latex paint
     Coating materials
ΙT
         (aq. latex paints, formulation of, with high gloss)
     79-10-7D, esters, polymers with styrene 66770-70-5
IT
                                                                66770-71-6
     RL: TEM (Technical or engineered material use); USES (Uses)
         (coatings, aq. latex paints, with high gloss)
     ANSWER 3 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN
L3
     9003-07-0 REGISTRY
RN
     Entered STN: 16 Nov 1984
ED
     1-Propene, homopolymer (9CI)
                                     (CA INDEX NAME)
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OTHER CA INDEX NAMES:
     Propene, polymers (8CI)
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OTHER NAMES:
CN
     001PF
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     03P10/01
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     04P10/01
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     05P10-040
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     100GA03
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CODEN: DLCPDY; ISSN: 0291-8412

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       BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST,
       CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE,
       ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT,
       IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA,
       PLASPEC*, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2,
       USPATFULL, VTB
         (*File contains numerically searchable property data)
                      DSL**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA
       CAplus document type: Book; Conference; Dissertation; Journal; Patent;
       Preprint; Report
RL.P
       Roles from patents: ANST (Analytical study); BIOL (Biological study);
       CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC
       (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);
       PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role
       in record)
RLD.P
       Roles for non-specific derivatives from patents: ANST (Analytical
       study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence);
       PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or
       reagent); USES (Uses); NORL (No role in record)
RL.NP
      Roles from non-patents: ANST (Analytical study); BIOL (Biological
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       MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC
       (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);
       NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical
       study); BIOL (Biological study); CMBI (Combinatorial study); FORM
       (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence);
       PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or
       reagent); USES (Uses); NORL (No role in record)
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/ Structure 15 in file .gra /

Experimental Properties (EPROP)

PROPERTY (CODE	E) VALUE	CONDITION	l nor	re
Boiling Point (BI	P) 220-228 deg C		(1)	CAS
Boiling Point (BI		j	(2)	CAS
Boiling Point (BE	P) 100-120 deg C	Press: 1.5 Torr	(3)	CAS
Boiling Point (B		İ	(4)	CAS
Boiling Point (BE			(5)	CAS
Boiling Point (BI			(6)	CAS
Density (DEN)	9.17 g/cm**3		(7)	CAS
Density (DEN)	1.6 g/cm**3		(8)	CAS
Density (DEN)	0.94 g/cm**3	Temp: 40 deg C	(9)	CAS
Density (DEN) Density (DEN)	0.921 g/cm**3 0.92 g/cm**3	Town . 40 dos C	(10)	CAS
Density (DEN)	0.92 g/cm**3	Temp: 40 deg C	(9) (11)	CAS CAS
Density (DEN)	0.92 g/cm**3	1	(12)	CAS
Density (DEN)	0.917 g/cm**3	ł	(12)	CAS
Density (DEN)	0.916 g/cm**3	Temp: 23 deg C	(14)	CAS
Density (DEN)	0.915-0.940 g/cm**3		(15)	CAS
Density (DEN)	0.915 g/cm**3		(16)	CAS
Density (DEN)	0.914 g/cm**3	Temp: 20 deg C	(17)	CAS
Density (DEN)	0.914 g/cm**3	İ	(18)	CAS
Density (DEN)	0.913 g/cm**3	Temp: 145 deg C	(17)	CAS
Density (DEN)	0.913 g/cm**3	!	(19)	CAS
Density (DEN)	0.913 g/cm**3	ļ	(20)	CAS
Density (DEN)	0.912 g/cm**3		(21)	CAS
Density (DEN)	0.912 g/cm**3		(22)	CAS
Density (DEN) Density (DEN)	0.912 g/cm**3		(23)	CAS
Density (DEN)	0.911 g/cm**3 0.911 g/cm**3	Temp: 20 deg C	(17)	CAS
Density (DEN)	0.9103 g/cm**3	Temp: 50 deg C	(17) (24)	CAS CAS
Density (DEN)	0.91 g/cm**3		(25)	CAS
Density (DEN)	0.91 g/cm**3		(26)	CAS
Density (DEN)	0.910 g/cm**3		(27)	CAS
Density (DEN)	0.91 g/cm**3	İ	(28)	CAS
Density (DEN)	0.91 g/cm**3	i	(29)	CAS
Density (DEN)	0.91 g/cm**3	ĺ	(30)	CAS
Density (DEN)	0.91 g/cm**3		(31)	CAS
Density (DEN)	0.91 g/cm**3		(32)	CAS
Density (DEN)	0.91 g/cm**3		(33)	CAS
Density (DEN)	0.909 g/cm**3	Temp: 145 deg C	(17)	CAS
Density (DEN) Density (DEN)	0.909 g/cm**3	Temp: 20 deg C	(17)	CAS
Density (DEN)	0.909 g/cm**3 0.9081 g/cm**3		(19)	CAS
Density (DEN)	0.908 g/cm**3		(34) (19)	CAS CAS
Density (DEN)	0.908 g/cm**3	Temp: 23 deg C	(35)	CAS
Density (DEN)	0.907 g/cm**3	Temp: 145 deg C	(17)	CAS
Density (DEN)	0.906 g/cm**3	Temp: 230 deg C	(36)	CAS
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Density (DEN)	0.905 g/cm**3		(38)	CAS
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Density (DEN) Density (DEN)	0.905 g/cm**3 0.905 g/cm**3		(44)	CAS
Density (DEN)	0.904 g/cm**3	1	(45) (46)	CAS CAS
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Density (DEN)	0.903 g/cm**3		(47)	CAS
Density (DEN)	0.903 g/cm**3	j	(48)	CAS
Density (DEN)	0.901-0.907 g/cm**3	j	(49)	CAS
Density (DEN)	0.90-0.92 g/cm**3	ļ j	(50)	CAS
		·		

		_					
Density (DEN)	0.90 g/cm**3	Temp:	40	deg	C	(9)	CAS
Density (DEN)	0.90 g/cm**3	i -				(51)	CAS
Density (DEN)	0.9 g/cm**3	i				(52)	
		ł					CAS
Density (DEN)	0.900 g/cm**3	!				(53)	CAS
Density (DEN)	0.900 g/cm**3	Temp:	20	deg	C	(54)	CAS
Density (DEN)	0.90 g/cm**3	i -				(55)	CAS
Density (DEN)	0.90 g/cm**3	ì				(56)	CAS
	· = .	!					
Density (DEN)	0.90 g/cm**3	!				(57)	CAS
Density (DEN)	0.9 g/cm**3					(58)	CAS
Density (DEN)	0.899 g/cm**3	İ				(59)	CAS
Density (DEN)	0.898 g/cm**3	1					
		!				(60)	CAS
Density (DEN)	0.897 g/cm**3	ł				(61)	CAS
Density (DEN)	0.897 g/cm**3					(62)	CAS
Density (DEN)	0.896 g/cm**3	Ï				(63)	CAS
Density (DEN)	0.896 g/cm**3	ļ					
	<u> </u>	!_		-	_	(64)	CAS
Density (DEN)	0.896 g/cm**3	Temp:	50	deg	C	(17)	CAS
Density (DEN)	>0.89 g/cm**3					(65)	CAS
Density (DEN)	0.89 g/cm**3	İ			i	(25)	CAS
Density (DEN)		ł					
	0.89 g/cm**3	1				(66)	CAS
Density (DEN)	0.89 g/cm**3	1				(67)	CAS
Density (DEN)	0.89 g/cm**3	Ì			İ	(68)	CAS
Density (DEN)	0.88 g/cm**3	Temp:	RΛ	dea	c	(9)	CAS
_ -	·						
Density (DEN)	0.87 g/cm**3	Temp:	40	aeg	c i	(9)	CAS
Density (DEN)	0.87 g/cm**3					(69)	CAS
Density (DEN)	0.86-0.91 g/cm**3	İ			- 1	(70)	CAS
Density (DEN)	0.85-0.90 g/cm**3	ł			- 1		
		!_		-	_	(71)	CAS
Density (DEN)	0.85 g/cm**3	Temp:				(9)	CAS
Density (DEN)	0.83-0.90 g/cm**3	Temp:	25	deq	c l	(72)	CAS
Density (DEN)	0.820-0.880 g/cm**3	i		_	i	(73)	CAS
_		m	20	ــــــــــــــــــــــــــــــــــــــ	_		
Density (DEN)	0.820-0.840 g/cm**3	Temp:	20	aeg	١ ا	(74)	CAS
Density (DEN)	0.8060-0.8727 g/cm**3	1				(75)	CAS
Density (DEN)	0.80 g/cm**3	Temp:	20	deq	c	(76)	CAS
Density (DEN)	0.75-0.89 g/cm**3	i -			ì	(76)	CAS
		ł			}		
Density (DEN)	0.53 g/cm**3	!			ļ	(77)	CAS
Density (DEN)	0.50 g/cm**3					(78)	CAS
Density (DEN)	0.49 g/cm**3				Ì	(79)	CAS
Density (DEN)	0.43 g/cm**3	i			i	(80)	CAS
Density (DEN)		ŀ			ł		
	0.43 g/cm**3	!			!	(81)	CAS
Density (DEN)	0.42 g/cm**3	ļ				(82)	CAS
Density (DEN)	0.42 g/cm**3				l	(80)	CAS
Density (DEN)	0.42 g/cm**3	ĺ			i	(81)	CAS
-		}			1		
Density (DEN)	0.42 g/cm**3	!			!	(83)	CAS
Density (DEN)	0.42 g/cm**3					(84)	CAS
Density (DEN)	0.385 g/cm**3	İ			i	(85)	CAS
Density (DEN)	0.35 g/cm**3	i			i		
					1	(86)	CAS
Density (DEN)	0.3 g/cm**3				[(87)	CAS
Density (DEN)	0.28 g/cm**3				1	(88)	CAS
Density (DEN)	0.27 g/cm**3	İ			i	(88)	CAS
Glass Transition	97 deg C	1					
	is all the second				!	(89)	CAS
Temperature (TG)	_				į		
Glass Transition	28 deg C					(90)	CAS
Temperature (TG)					i		
Glass Transition	10.0 deg C				ł	(14)	CAC
	10.0 deg C					(14)	CAS
Temperature (TG)							
Glass Transition	10.0 deg C				- 1	(91)	CAS
Temperature (TG)	ĺ				j		
Glass Transition	4.8 deg C					(00)	G2 G
	14.8 deg C					(92)	CAS
Temperature (TG)							
Glass Transition	2 deg C					(93)	CAS
Temperature (TG)	į				i	-	
Glass Transition	-1 3 deg C					(04)	CAC
	-1.3 deg C				ļ	(94)	CAS
Temperature (TG)							
Glass Transition	-2.2 deg C				j	(94)	CAS
Temperature (TG)	-					·- - /	
	-3 9 deg C				ł	(04)	an a
Glass Transition	-3.9 deg C					(94)	CAS
Temperature (TG)	ļ l						
Glass Transition	-5.6 deg C				i	(94)	CAS
Temperature (TG)					1	·/	J
_ = -	7 2 40~ 6				- 1	1011	~~ ~
Glass Transition	-7.2 deg C				ļ	(94)	CAS
Temperature (TG)					1		
Glass Transition	-8.35 deg C				i	(95)	CAS
Temperature (TG)					ľ	,	
	ı I				- 1		

Glass Transition	-8.58 deg C	(95) CAS
Temperature (TG) Glass Transition	 -9.37 deg C	(95) CAS
Temperature (TG)		''	, CAU
Glass Transition	-9.65 deg C	95) CAS
Temperature (TG) Glass Transition	-10 deg C	(94) CAS
Temperature (TG)			
Glass Transition Temperature (TG)	-10.5 deg C	96) CAS
Glass Transition	-11.1 deg C	(95) CAS
Temperature (TG) Glass Transition	12 dog C	(07	\
Temperature (TG)	-12 deg C	97) CAS
Glass Transition	-12 deg C	(98) CAS
Temperature (TG) Glass Transition	 -13 deg C	98) CAS
Temperature (TG)		'3") C¥2
Glass Transition	-14 deg C	(98) CAS
Temperature (TG) Glass Transition	-14 deg C	(99) CAS
Temperature (TG)		İ	
Glass Transition Temperature (TG)	-14.4 deg C	94) CAS
Glass Transition	-14.6 deg C	(100) CAS
Temperature (TG)	15 2 dos 0	//201	\
Glass Transition Temperature (TG)	-153 deg C	(101) CAS
Glass Transition	-15 deg C	(98) CAS
Temperature (TG) Glass Transition	 -16.4 deg C	(94) CAS
Temperature (TG)			, CAD
Glass Transition	-18 deg C	(98) CAS
Temperature (TG) Glass Transition	-25-55 deg C	(73) CAS
Temperature (TG)			
Glass Transition Temperature (TG)	-120 deg C	(89) CAS
Melting Point (MP)	467 deg C	(102) CAS
Melting Point (MP)	280-335 deg C	(103	
Melting Point (MP)	183 deg C	(104	
Melting Point (MP)	183 deg C	(105	
Melting Point (MP) Melting Point (MP)	180 deg C	(106	
Mercing Point (MP)	175 deg C (approx)	(107) CAS
Melting Point (MP)	175 deg C	(54) CAS
Melting Point (MP)	174 deg C	(99	
Melting Point (MP)	172.5 deg C	(14	
Melting Point (MP)	171.5 deg C	(14	
Melting Point (MP)	170 deg C	(108) CAS
Malhias Daine (MD)	(approx)		
Melting Point (MP) Melting Point (MP)	170 deg C	(109	
Melting Point (MP)	170 deg C 170 deg C	(110	
Melting Point (MP)	170 deg C 169 deg C	(111	
Melting Point (MP)	1168 deg C	(107)	
, , , , , , , , , , , , , , , , , , ,	(approx)	(10)	
Melting Point (MP)	168 deg C	(113)	CAS
Melting Point (MP)	168 deg C	(114)	
Melting Point (MP)	168 deg C	(115)	CAS
Melting Point (MP)	168 deg C	(116)	
Melting Point (MP)	168 deg C	[(117]	
Melting Point (MP)	168 deg C	(118)	
Melting Point (MP)	167.5 deg C	(119)	
Melting Point (MP)	167 deg C	(120)	
Melting Point (MP) Melting Point (MP)	167 deg C	(121)	
Melting Point (MP)	167 deg C 166 deg C	(46)	
Melting Point (MP)	165 deg C	(122) (123)	
Melting Point (MP)	165 deg C 165 deg C	(123)	
Melting Point (MP)	165 deg C	(124)	
	165 deg C	(104)	
-	, <u> </u>	, , , , , , , , , , , , , , , , , , , ,	-

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Melting	Point	(MP)	164.0 deg C	(126)	CAS
			! ; -		
Melting			164 deg C	(40)	CAS
Melting	Point	(MP)	163.5 deg C	(119)	CAS
Melting	Point	(MP)	163.5 deg C	(60)	CAS
Melting			i = :		
	_		163.2 deg C	(127)	CAS
Melting	Point	(MP)	163 deg C	(39)	CAS
Melting	Point	(MP)	162.7 deg C	(126)	CAS
			i		
Melting			162.0 deg C	(127)	CAS
Melting	Point	(MP)	162.0 deg C	(128)	CAS
Melting	Point	(MP)	162.0 deg C	(83)	CAS
		1 1	161.7 deg C	1 .	
Melting			!	(128)	CAS
Melting	Point	(MP)	161.6 deg C	(129)	CAS
Melting	Point	(MP)	161.4 deg C	(130)	CAS
. •			i _		
Melting			161.3 deg C	(131)	CAS
Melting	Point	(MP)	161.2 deg C	(132)	CAS
Melting	Point	(MP)	161 deg C	(133)	CAS
Melting			161.0 deg C	(128)	CAS
			!		
Melting	Point	(Wib)	161 deg C	(77)	CAS
Melting	Point	(MP)	161 deg C	(134)	CAS
Melting			160.3 deg C	(130)	CAS
_			i - i	1	
Melting	Point	(MP)	160-168 deg C	(135)	CAS
Melting	Point	(MP)	160 deg C	(133)	CAS
Melting			160 deg C	(136)	CAS
. •			1	1 :	
Melting	Point	(MP)	160 deg C	(119)	CAS
Melting	Point	(MP)	159.0 deg C	(130)	CAS
Melting			158.7 deg C	(130)	CAS
	_			1 1	
Melting	_		158.2 deg C	(130)	CAS
Melting	Point	(MP)	158-170 deg C	(11)	CAS
Melting	Point	(MP)	158-164 deg C	(49)	CAS
		• •	· · · · · · · · · · · · · · · · · · ·		
Melting		(MP)	158.0 deg C	(130)	CAS
Melting	Point	(MP)	157.4 deg C	(130)	CAS
Melting	Point	(MP)	157-162 deg C	(63)	CAS
Melting			157-162 deg C		CAS
_				(64)	
Melting		(MP)	157 deg C	(137)	CAS
Melting	Point	(MP)	157 deg C	(133)	CAS
Melting		(MP)	156 deg C	(137)	CAS
		1 1	· · · · · · · · · · · · · · · · · · ·		
Melting	Point	(MP)	156 deg C	(133)	CAS
Melting	Point	(MP)	155-165 deg C	(138)	CAS
Melting		(MP)	154.9 deg C	(130)	CAS
Melting		(MP)	154.7 deg C	(130)	CAS
Melting	Point	(MP)	154 deg C	(133)	CAS
Melting	Point	(MD)	153.7 deg C	(130)	CAS
Melting			152 deg C	(95)	CAS
Melting	Point	(MP)	151.6 deg C	(139)	CAS
Melting	Point	(MP)	151 deg C	(133)	CAS
Melting			150 deg C	!	
			=	(95)	CAS
Melting	Point	(MP)	149-204 deg C	(70)	CAS
Melting	Point	(MP)	149 deg C	(95)	CAS
Melting			148.3 deg C	(139)	CAS
_				:	
Melting			148.1 deg C	(139)	CAS
Melting	Point	(MP)	148 deg C	(137)	CAS
Melting			147 deg C	(140)	CAS
_			=		
Melting			147 deg C	(95)	CAS
Melting	Point	(MP)	146.1 deg C	(127)	CAS
Melting	Point	(MP)	146.1 deg C	(139)	CAS
Melting			146 deg C	(137)	CAS
			!		
Melting	Point	(MP)	146 deg C	(140)	CAS
Melting	Point	(MP)	145.9 deg C	(139)	CAS
Melting			145.8 deg C	(127)	CAS
Melting			145 deg C	(137)	CAS
Melting	Point	(MP)	145 deg C	(141)	CAS
Melting			145 deg C	(140)	CAS
Melting			145 deg C	(95)	CAS
Melting	Point	(MP)	144 deg C	(137)	CAS
Melting	Point	(MP)	143 deg C	(137)	CAS
			· '		
Melting			143 deg C	(141)	CAS
Melting			143 deg C	(140)	CAS
Melting	Point	(MP)	143 deg C	(94)	CAS
Melting			142.7 deg C	(139)	CAS
_			- !		
Melting			142.3 deg C	(139)	CAS
Melting	Point	(MP)	142.2 deg C	(142)	CAS
Melting			142 deg C	(137)	CAS
		·/		(10/)	CUO

Melting Point	(MP)	142 deg C	(140)	CAS
Melting Point		142 deg C	(94)	CAS
		: -		
Melting Point		141.1 deg C	(142)	CAS
Melting Point		141 deg C	(137)	CAS
Melting Point	(MP)	141 deg C	(141)	CAS
Melting Point	(MP)	141 deg C	(140)	CAS
Melting Point		140 deg C		
- .		! · ·	(137)	CAS
Melting Point	(MP)	140.0 deg C	(142)	CAS
Melting Point	(MP)	140 deg C	(140)	CAS
Melting Point	(MP)	139.7 deg C	(9)	CAS
Melting Point		139 deg C	(137)	CAS
_				
Melting Point		139 deg C	(140)	CAS
Melting Point	(MP)	138.2 deg C	(127)	CAS
Melting Point	(MP)	138 deg C	(137)	CAS
Melting Point		138.0 deg C	(142)	CAS
_		: - !		
Melting Point		137.5 deg C	(142)	CAS
Melting Point		137.5 deg C	(127)	CAS
Melting Point	(MP)	137.4 deg C	(130)	CAS
Melting Point	(MP)	137 deg C	(137)	CAS
Melting Point		137 deg C	(141)	CAS
		: - ;		
Melting Point		137 deg C	(140)	CAS
Melting Point	(MP)	136.7 deg C	(130)	CAS
Melting Point	(MP)	135.9 deg C	(142)	CAS
Melting Point	(MP)	135.5 deg C	(130)	CAS
Melting Point		135.4 deg C		CAS
_		- !	(130)	
Melting Point		135.4 deg C	(142)	CAS
Melting Point	(MP)	135.1 deg C	(130)	CAS
Melting Point	(MP)	135 deg C	(137)	CAS
Melting Point		135 deg C	(141)	CAS
-				
Melting Point		135 deg C	(140)	CAS
Melting Point		134.9 deg C	(9)	CAS
Melting Point	(MP)	134.3 deg C	(9)	CAS
Melting Point	(MP)	134.2 deg C	(130)	CAS
Melting Point		134 deg C	(140)	CAS
_				
Melting Point		133.6 deg C	(142)	CAS
Melting Point		133 deg C	(143)	CAS
Melting Point	(MP)	132.4 deg C	(142)	CAS
Melting Point	(MP)	132 deg C	(140)	CAS
Melting Point		131.7 deg C	(130)	CAS
-				
Melting Point		131 deg C	(143)	CAS
Melting Point		131 deg C	(140)	CAS
Melting Point	(MP)	130.5 deg C	(130)	CAS
Melting Point		130-140 deg C	(71)	CAS
Melting Point		130 deg C	(137)	CAS
Melting Point		130.0 deg C	(9)	CAS
Melting Point		129.8 deg C	(130)	CAS
Melting Point	(MP)	129.2 deg C	(130)	CAS
Melting Point		129 deg C	(137)	CAS
Melting Point		128.7 deg C		
			(142)	CAS
Melting Point		128 deg C	(137)	CAS
Melting Point ((MP)	128 deg C	(140)	CAS
Melting Point ((MP)	127 deg C	(143)	CAS
Melting Point		127 deg C	(140)	CAS
Melting Point		125-155 deg C		
		- !	(144)	CAS
Melting Point		125-150 deg C	(144)	CAS
Melting Point (125 deg C	(145)	CAS
Melting Point ((MP)	123.4 deg C	(142)	CAS
Melting Point		123 deg C	(137)	CAS
Melting Point		121 deg C	(137)	CAS
		- · · · · · · · · · · · · · · · · · · ·		
Melting Point (:	120-155 deg C	(144)	CAS
Melting Point (120-150 deg C	(144)	CAS
Melting Point ((MP) į	120 deg C	(137)	CAS
Melting Point (119 deg C	(137)	CAS
Melting Point (118.1 deg C	(142)	
		- !		CAS
Melting Point (116 deg C	(137)	CAS
Melting Point (115-155 deg C	(144)	CAS
Melting Point ((MP)	114 deg C	(137)	CAS
Melting Point (111 deg C	(137)	CAS
Melting Point (110-150 deg C	(144)	
		- ,		CAS
Melting Point (110 deg C	(137)	CAS
Melting Point (109 deg C	(137)	CAS
Melting Point ((MP)	105-170 deg C	(31)	CAS
-	,	- '		

Melting Point (MP)	105-140 deg C	1	(144)	CAS
Melting Point (MP)	103 deg C	į	(137)	CAS
Melting Point (MP)	<u> </u>	i	1 7	
	100-140 deg C	!	(144)	CAS
Melting Point (MP)	93 deg C	Ţ	(137)	CAS
Melting Point (MP)	90-125 deg C		(144)	CAS
Melting Point (MP)	90-110 deg C	İ	(144)	CAS
	-	1	! ' '	
Melting Point (MP)	90-105 deg C	ļ	(144)	CAS
Melting Point (MP)	87.0 deg C	•	(9)	CAS
Melting Point (MP)	85 deg C	1	(146)	CAS
Melting Point (MP)	84 deg C	j	(137)	CAS
	<u> </u>	}		
Melting Point (MP)	83 deg C		(137)	CAS
Melting Point (MP)	81 deg C		(137)	CAS
Melting Point (MP)	81 deg C		(147)	CAS
Melting Point (MP)	80-155 deg C	j	(144)	CAS
-	-	1		
Melting Point (MP)	80 deg C		(137)	CAS
Melting Point (MP)	74 deg C		(137)	CAS
Melting Point (MP)	73.3 deg C	1	(9)	CAS
Melting Point (MP)	-45 deg C	i	(74)	CAS
Refractive Index (Marrian 164600		
		Wavlen: 164600 nm		CAS
Refractive Index (1		Wavlen: 118834 nm	(148)	CAS
Refractive Index (RI) 1.494	Wavlen: 163034 nm	(148)	CAS
Refractive Index (PT) 1 490	Wavlen: 170576 nm		CAS
	•			
Refractive Index (Wavlen: 251140 nm		CAS
Tensile Strength (TS) 1015 MPa		(131)	CAS
Tensile Strength (S) 217.18 MPa	İ	(149)	CAS
Tensile Strength (· i	(150)	CAS
Tensile Strength (•		(151)	CAS
Tensile Strength (7	S) 96.72 MPa		(152)	CAS
Tensile Strength (1	S) 90.71 MPa	j	(152)	CAS
Tensile Strength (
			(152)	CAS
Tensile Strength ((152)	CAS
Tensile Strength (7	S) 62.05 MPa		(149)	CAS
Tensile Strength (7	S) 48.6 MPa	j	(153)	CAS
Tensile Strength (i		
			(131)	CAS
Tensile Strength (Ī		(154)	CAS
Tensile Strength (1	S) 38.61 MPa		(155)	CAS
Tensile Strength (7	S) 38 MPa	Temp: 25 deg C	(156)	CAS
Tensile Strength (7		1		
			(157)	CAS
Tensile Strength (7			(104)	CAS
Tensile Strength (7	'S) 37.92 MPa		(155)	CAS
Tensile Strength (1	'S) 37.8 MPa	į	(153)	CAS
Tensile Strength (7		Temp: 25 deg C	(156)	CAS
	• 1			
Tensile Strength (7		Temp: 25 deg C	(156)	CAS
Tensile Strength (7			(158)	CAS
Tensile Strength (7	'S) 35.4 MPa	ĺ	(126)	CAS
Tensile Strength (7		i	(158)	CAS
Tensile Strength (7				
			(159)	CAS
Tensile Strength (1			(158)	CAS
Tensile Strength (7	S) 34 MPa		(160)	CAS
Tensile Strength (T	S) 34 MPa	Temp: 25 deg C	(156)	CAS
Tensile Strength (T		110		
			(155)	CAS
Tensile Strength (T		ļ l	(19)	CAS
Tensile Strength (1			(131)	CAS
Tensile Strength (T	S) 31 MPa	į	(161)	CAS
Tensile Strength (T		i		
			(19)	CAS
Tensile Strength (T		ļ	(162)	CAS
Tensile Strength (I			(104)	CAS
Tensile Strength (T	S) 29.85 MPa		(19)	CAS
Tensile Strength (T		j	(159)	CAS
Tensile Strength (T				
			(163)	CAS
Tensile Strength (T			(164)	CAS
Tensile Strength (T		Temp: 80 deg C	(156)	CAS
Tensile Strength (T		Temp: 80 deg C	(156)	CAS
Tensile Strength (T				
		Temp: 80 deg C	(156)	CAS
Tensile Strength (T		Temp: 80 deg C	(156)	CAS
Tensile Strength (T		Temp: 80 deg C	(156)	CAS
Tensile Strength (T	S) 10.1 MPa	Temp: 80 deg C	(156)	CAS
Tensile Strength (T				CAS
Jozonyon (1	1 .		(95)	CAS
manadh a ar	(Break)	1		
Tensile Strength (T	•	1	(95)	CAS
	(Break)			
Tensile Strength (T	S) 7.61 MPa	į	(95)	CAS
3 (-		ı	(23)	0270

	1,- ,,		1			
Tensile	(Break) E Strength (TS) 6.58 MPa		(95) CAS			
100120	(Break)		(JJ) CAD			
Tensile	e Strength (TS) 5.20 MPa (Break)		(95) CAS			
Tensile		Temp: 120 deg C	(156) CAS			
		Temp: 120 deg C	(156) CAS			
			(156) CAS			
	·		(156) CAS			
	· !		(156) CAS			
			(156) CAS			
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Experimental Property Tags (ETAG)

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Permeability	(41)	CAS
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Photoelectron Spectra	(42)	CAS
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X-Ray Spectra	(62)	CAS
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 - REFERENCE 2

AN 144:99270 CA

- TI Precision-sealed electronic devices provided in automotives
- IN Abe, Ken; So, Isamu
- PA Furukawa Electric Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 7 pp.
 - CODEN: JKXXAF
- DT Patent
- LA Japanese
- CC 76-3 (Electric Phenomena)
 Section cross-reference(s): 38, 39

FAN.CNT 1

```
PRAI JP 2004-184396
                      20040623
     The title sealed device comprises built-in electronic components on a a
     flexible printed circuit board, a potting elastomer material coated over
     the components on the circuit board, and a thermoplastic foamed polymer
     protective layer coated over the components and the potting material on
     the substrate where heat-ink plate as a heat-releasing plate laminated on
     the rear side of the substrate may be exposed from the protective layer.
     The arrangement gives the devices shape precision, thermal insulation to
     the internal components, and economical manufg.
ST
     potting elastomer coating electronic device protection flexible circuit
     board; thermoplastic foamed polymer protective coating electronic device
     flexible circuit
IT
     Butyl rubber, properties
     RL: PRP (Properties)
        (coating materials; foamed thermoplastic-protected precision-sealed
        electronic devices provided in automotives)
     Potting compositions
IT
        (elastomer; foamed thermoplastic-protected precision-sealed electronic
        devices provided in automotives)
IT
     Printed circuit boards
        (flexible; foamed thermoplastic-protected precision-sealed electronic
        devices provided in automotives)
IT
     Automobiles
     Electric apparatus
        (foamed thermoplastic-protected precision-sealed electronic devices
        provided in automotives)
     Thermal insulators
IT
        (for electronic components; foamed thermoplastic-protected
        precision-sealed electronic devices provided in automotives)
IT
     Coating materials
        (potting elastomer and protective polymer; foamed thermoplastic-
        protected precision-sealed electronic devices provided in automotives)
     Synthetic rubber, properties
IT
     RL: PRP (Properties)
        (potting materials; foamed thermoplastic-protected precision-sealed
        electronic devices provided in automotives)
IT
     Plastics, properties
     RL: PRP (Properties)
        (thermoplastics, foaming; foamed thermoplastic-protected
        precision-sealed electronic devices provided in automotives)
IT
     9010-85-9
     RL: PRP (Properties)
        (butyl rubber, coating materials; foamed thermoplastic-protected
        precision-sealed electronic devices provided in automotives)
     124-38-9, Carbon dioxide, properties
IT
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (polymer foaming gas; foamed thermoplastic-protected precision-sealed
        electronic devices provided in automotives)
IT
     9003-07-0, Polypropylene
     RL: PRP (Properties)
        (thermoplastic CO2-foaming polymer protective layer; foamed
        thermoplastic-protected precision-sealed electronic devices provided in
        automotives)
REFERENCE 3
AN
     144:98868 CA
TI
     Press connectors provided with water-proofing and impact-resistance
IN
     Ide, Takehisa; Terunuma, Ichiro
PΑ
     Fujikura Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 22 pp.
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
    76-2 (Electric Phenomena)
    Section cross-reference(s): 38, 39
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                           -----
                                           -----
PΙ
    JP 2006012744
                     A2
                           20060112
                                          JP 2004-192234 20040629
PRAI JP 2004-192234 20040629
    The title press connector comprises a polar polymer connector housing, a
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retainer, and a press contact terminal, wherein the cable support for the retainer supports has non-polar polymer insulator coated flat cable to be supported in parallel to the perpendicular plane to the connecting direction. The polymer mold for sealing the press connection port provided between the wire and the connector is a hot melt polymer compn. contg. maleic acid-reformed polyolefin and C9 hydrogenated petroleum resins, amorphous polyolefins, and ethylene-propylene-styrene copolymer rubber.

- ST sealing mold
- IT Electric insulators

(coating layer; press connectors provided with water-proofing and impact-resistance)

IT Electric insulators

(coatings; press connectors provided with water-proofing and impact-resistance)

IT Synthetic rubber, properties

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (ethylene-propylene-styrene copolymer sealing mixt.; press connectors provided with water-proofing and impact-resistance)

- IT Isoprene-styrene rubber
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (hydrogenated, block, triblock, styrene-ethylene-propylene rubber; press connectors provided with water-proofing and impact-resistance)
- IT Petroleum resins
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (hydrogenated, sealing mixt.; press connectors provided with water-proofing and impact-resistance)
- IT Polyolefins
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (maleic acid-reformed and amorphous, sealing mixt.; press connectors provided with water-proofing and impact-resistance)
- IT Sealing

(polymer mold; press connectors provided with water-proofing and impact-resistance)

- IT Molds (forms)
 - (polymer, for sealing; press connectors provided with water-proofing and impact-resistance)
- IT Water-resistant materials

(press connectors provided with water-proofing and impact-resistance)

IT Interconnections, electric

(press; press connectors provided with water-proofing and impact-resistance)

- IT 110-16-7D, Maleic acid, polymers with polypropylene 9003-07-0D, Polypropylene, polymers with maleic acid
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (Polybond, insulator compn.; press connectors provided with water-proofing and impact-resistance)
- IT 25895-47-0, Vestoplast 828
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (amorphous polypropylene, insulator compn.; press connectors provided with water-proofing and impact-resistance)
- IT 700836-36-8D, hydrogenated, block, triblock
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (isoprene-styrene rubber, styrene-ethylene-propylene rubber; press connectors provided with water-proofing and impact-resistance)
- IT 827311-00-2, Auroren 150S
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (maleic acid-reformed polyethylene, insulator compn.; press connectors provided with water-proofing and impact-resistance)
- IT 110-16-7, Maleic acid, properties
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (reforming agent, for polyolefins, sealing mixt.; press connectors provided with water-proofing and impact-resistance)
- IT 25608-79-1, Ethylene-propylene-styrene copolymer
 - RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (rubber, coating mixt.; press connectors provided with water-proofing and impact-resistance)

REFERENCE 4

- AN 144:98171 CA
- TI Polymers in electronics: plastics applications expand, keeping pace with

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industry needs
AU
     Stewart, Richard
CS
SO
     Plastics Engineering (Brookfield, CT, United States) (2005), 61(8), 18-26
     CODEN: PLEGBB; ISSN: 0091-9578
     Society of Plastics Engineers
PB
DT
     Journal; General Review
LA
     English
CC
     76-0 (Electric Phenomena)
AB
     A review, with no refs. Engineering thermoplastics and other
     high-performance polymers play an increasingly vital role in the prodn. of
     electronic components and microelectronic devices. New resins, additives,
     and fillers have been developed to meet thin wall and high temp.
     requirements for molded parts, while innovative uses of conductive
     polymers are expanding the role of plastics in electronics even further.
     review electronics application thermoplastic polymers antenna; printed
ST
     circuit board microelectronic device conducting polymer review;
     polyurethane polyamide fluoropolymer polyimide plastic electronics review
TΤ
     Antennas
     Conducting polymers
     Electronic packaging process
     Liquid crystals, polymeric
     Microelectronic devices
     Nanotubes
     Printed circuit boards
     Semiconductor devices
        (expansion of plastics application in electronics industry)
IT
     Fluoropolymers, uses
     Plastics, uses
     Polyamide fibers, uses
     Polyamides, uses
     Polymers, uses
     Polyurethanes, uses
     Synthetic rubber, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (expansion of plastics application in electronics industry)
IT
     Polyimides, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (polyether-; expansion of plastics application in electronics industry)
IT
     Polyethers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (polyimide-; expansion of plastics application in electronics industry)
IT
     Plastics, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (thermoplastics; expansion of plastics application in electronics
        industry)
IT
     9003-07-0, Polypropylene
     RL: TEM (Technical or engineered material use); USES (Uses)
        (expansion of plastics application in electronics industry)
REFERENCE 5
AN
     144:97659 CA
ΤI
     Electrophotographic toner containing color toner and transparent toner,
     and multicolor image formation
IN
     Mori, Yukihiro; Miyatake, Takamori
PΑ
     Kyocera Mita Industrial Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 18 pp.
so
    CODEN: JKXXAF
DT
    Patent
LA
CC
     74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
     -----
                    ----
PΙ
    JP 2006011218
                     A2
                            20060112
                                          JP 2004-191043 20040629
PRAI JP 2004-191043
                     20040629
    The toner, for multicolor image formation, comprises (A) color toners free
    from wax and (B) transparent toner contg. wax for the outermost layer
     formation. Multicolor image is formed by the A, B layer is formed
    thereon, and fixed with roller. Clear multicolor image without offset is
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obtained even on oil-less fixing system.
ST
     electrophotog color toner wax free; transparent toner wax electrophotog
IT
     Electrophotographic toners
        (multicolor electrophotog. toner comprising color toner free from wax
        and transparent toner contg. wax)
IT
     Polyoxyalkylenes, preparation
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
        (polyester-, transparent toner binder; multicolor electrophotog. toner
        comprising color toner free from wax and transparent toner contg. wax)
    Polyesters, preparation
IT
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
        (polyoxyalkylene-, transparent toner binder; multicolor electrophotog.
        toner comprising color toner free from wax and transparent toner contg.
        wax)
     95890-94-1P, Divinylbenzene-2-ethylhexyl methacrylate-styrene copolymer
IT
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
        (color toner binder; multicolor electrophotog. toner comprising color
        toner free from wax and transparent toner contg. wax)
     96360-62-2P, Polyoxyethylene(2.2)-2,2-bis(4-hydroxyphenyl)propane-
TT
    polyoxypropylene(2.2)-2,2-bis(4-hydroxyphenyl)propane-terephthalic
    acid-trimellitic anhydride copolymer
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
        (transparent toner binder; multicolor electrophotog. toner comprising
        color toner free from wax and transparent toner contg. wax)
    9003-07-0D, Polypropylene, derivs.
IT
                                         202484-10-4, Youmex 100TS
    RL: TEM (Technical or engineered material use); USES (Uses)
        (wax; multicolor electrophotog. toner comprising color toner free from
        wax and transparent toner contg. wax)
REFERENCE 6
AN
    144:97639 CA
    Magnetic toner and conductive developer compositions
TI
IN
    Grande, Michael L.; Hollenbaugh, William H.
PA
    Xerox Corporation, USA
SO
    U.S. Pat. Appl. Publ., 6 pp.
    CODEN: USXXCO
DT
    Patent
LA
    English
NCL
    430106200
    74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
     -----
                                          -----
PI
    US 2006003244
                     A1
                           20060105
                                         US 2004-879117 20040630
PRAI US 2004-879117 20040630
    Magnetic toner compns., conductive developer compns., and methods for
    producing images in a hybrid jumping development system, more
    specifically, in a magnetic ink character recognition system, are
    disclosed. The developer compns. contain coated magnetic toner particles
    and coated carrier particles. The toner compns. include a resin,
    colorant, wax, magnetic component, and surface additives of coated silica,
    titania, and zinc stearate.
ST
    electrophotog toner magnetic conductive developer
IT
    Carbon black, uses
    Polyanilines
    RL: TEM (Technical or engineered material use); USES (Uses)
        (coating for carrier particles; magnetic toner and conductive developer
        compns.)
    Polysiloxanes, uses
    RL: TEM (Technical or engineered material use); USES (Uses)
        (coating for silica particles; magnetic toner and conductive developer
IT
    Polyesters, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (crosslinked; magnetic toner and conductive developer compns.)
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IT
     Electrophotographic developers
        (magnetic toner and conductive developer compns.)
IT
     Electrophotographic developers
        (magnetic toners; magnetic toner and conductive developer compns.)
     25233-30-1, Polyaniline
                              30604-81-0, Polypyrrole
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coating for carrier particles; magnetic toner and conductive developer
        compns.)
     3069-40-7, Octyltrimethoxysilane
IT
                                       9016-00-6, Dimethylsilanediol
     homopolymer, sru 31900-57-9, Dimethylsilanediol homopolymer
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coating for silica particles; magnetic toner and conductive developer
        compns.)
IT
     5575-48-4, Decyltrimethoxysilane
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coating for titania particles; magnetic toner and conductive developer
        compns.)
IT
     12597-69-2, Steel, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (core of carrier particles; magnetic toner and conductive developer
        compns.)
     557-05-1, Zinc stearate 1309-38-2, Magnetite, uses 7631-86-9, Silica,
IT
                      13463-67-7, Titania, uses
     uses
           9002-88-4
     RL: TEM (Technical or engineered material use); USES (Uses)
        (magnetic toner and conductive developer compns.)
IT
     26061-90-5, Ethylene-glycidyl methacrylate copolymer
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (wax compatibilizer; magnetic toner and conductive developer compns.)
IT
     9003-07-0, Polypropylene
     RL: TEM (Technical or engineered material use); USES (Uses)
        (wax; magnetic toner and conductive developer compns.)
REFERENCE 7
AN
     144:97486 CA
TI
     Reflective surface materials having specific 3D patterns and automobile
     interior parts therewith
IN
     Shibukawa, Akiya; Harada, Hiroaki; Nagayama, Hiroki
PA
    Nissan Motor Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 36 pp.
SO
    CODEN: JKXXAF
рπ
    Patent
LA
    Japanese
     73-12 (Optical, Electron, and Mass Spectroscopy and Other Related
CC
     Properties)
     Section cross-reference(s): 38
FAN.CNT 1
    PATENT NO.
                  KIND DATE
                                         APPLICATION NO. DATE
     -----
                                          -----
    JP 2006011177 A2
PT
                           20060112
                                         JP 2004-190338 20040628
PRAI JP 2004-190338 20040628
AB
    The materials, attached to such parts as car instrument panels, door
     trims, and/or rear parcel shelves to suppress them from getting hot under
     sun beams, form 3D patterns made up with units having depressed
     cross-section and being arranged on substrates so that their reflective
     (e.g., metalized) and absorptive side oriented unidirectionally for each.
    The substrates may comprise PVC, thermoplastic polyolefins, acrylic
    resins, PP, or polyesters. The materials may be planarized on surface
    with transparent materials to have flat surface.
ST
    three dimensionally patterned reflector automobile interior; aluminum
    deposited polyolefin reflective unit light reflector; summertime temp
    elevation prevention vehicle interior reflector
IT
    Optical reflectors
        (3D-patterned reflective surface materials for car interior parts
       suppressing temp. elevation)
IT
        (automotive, door trims; 3D-patterned reflective surface materials for
       car interior parts suppressing temp. elevation)
IT
    Automobiles
        (interior parts, instrument panels, rear parcel shelves; 3D-patterned
       reflective surface materials for car interior parts suppressing temp.
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elevation)
IT
     Acrylic polymers, uses
     Polyesters, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (substrates; 3D-patterned reflective surface materials for car interior
        parts suppressing temp. elevation)
IT
     Polvolefins
     RL: TEM (Technical or engineered material use); USES (Uses)
        (thermoplastic, substrates; 3D-patterned reflective surface materials
        for car interior parts suppressing temp. elevation)
IT
     9002-86-2, Vinyl chloride resin 9003-07-0, Polypropylene
     RL: TEM (Technical or engineered material use); USES (Uses)
        (substrates; 3D-patterned reflective surface materials for car interior
        parts suppressing temp. elevation)
REFERENCE 8
ΔN
     144:94510 CA
     Pharmaceutical containers with low adsorption/absorption of drugs
TΙ
     Baker, David Stephen; Bandyopadhyay, Paramita; Pesheck, Carolyn Verna;
IN
     Singh, Satish Kumar; Thompson, Brian Edward
PΑ
     Pharmacia & Upjohn Company, USA
SO
     U.S. Pat. Appl. Publ., 11 pp.
     CODEN: USXXCO
DT
     Patent
LA
     English
TC
     ICM B65D001-00
NCL.
    428036600
CC
     63-8 (Pharmaceuticals)
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
     -----
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                                          -----
                                                           -----
     US 2005287325
PΙ
                     A1
                           20051229
                                          US 2004-877155 20040625
PRAI US 2004-877155 20040625
     The present invention relates to a container comprising, 1 or more
     polyolefins exhibiting <20% sorption of drugs as detd. by a suitably
     acceptable method; and a compn. comprising these drugs. The invention
     also provides a method of detg. whether a package material will provide a
     desired stability of an active ingredient of a pharmaceutical compn.; a
     method of maintaining the concn. of a drug in the dosage form, upon
     storage in a container; and a method of manufg. a storage container.
     Packages for prostaglandin compns. were prepd. by using the materials,
     e.g., Atofina 3020 PP.
ST
     pharmaceutical container adsorption absorption; polyolefin container
     adsorption absorption pharmaceutical
IT
     Drug delivery systems
        (ophthalmic; pharmaceutical containers with low adsorption/absorption
        of drugs)
IT
     Adsorption
     Bottles
     Containers
     Drug delivery systems
     Flexural modulus
     Glaucoma (disease)
     Packaging materials
     Sorption
     Stability
     Surface area
        (pharmaceutical containers with low adsorption/absorption of drugs)
TΤ
     Polymer blends
     Polyolefins
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (pharmaceutical containers with low adsorption/absorption of drugs)
TT
     Prostaglandins
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical containers with low adsorption/absorption of drugs)
     25213-02-9, Marlex HHM 5502
IT
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (HDPE; pharmaceutical containers with low adsorption/absorption of
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IT
     9002-88-4, Du Pont 20
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (LDPE; pharmaceutical containers with low adsorption/absorption of
IT
     9010-79-1, Appryl 3020
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (Z 9450; pharmaceutical containers with low adsorption/absorption of
        drugs)
     9003-07-0, Appryl 3030 872130-33-1, Appryl 6253
IT
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (pharmaceutical containers with low adsorption/absorption of drugs)
     38315-48-9D, 16-Phenyl-17,18,19,20-tetranorprostaglandin F2.alpha.,
IT
     derivs.
              38344-08-0D, 17-Phenyl-18,19,20-trinorprostaglandin F2.alpha.,
     derivs.
              41639-83-2D, derivs. 51705-19-2D,
     16-Phenoxy-17,18,19,20-tetranorprostaglandin F2.alpha., derivs.
     120373-24-2, Isopropyl Unoprostone 130209-82-4, Latanoprost
                                                                    157283-68-
                    872130-34-2, Appryl 7231X 872130-47-7, Appryl 8473
     6, Travoprost
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical containers with low adsorption/absorption of drugs)
REFERENCE 9
AN
     144:94496 CA
ΤI
     Drug packaging papers having heat-sealed portions
IN
     Ishii, Hiroshi
PΑ
     Elquest Corp., Japan
     Jpn. Kokai Tokkyo Koho, 6 pp.
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
CC
     63-7 (Pharmaceuticals)
FAN.CNT 1
     PATENT NO. KIND DATE
                                        APPLICATION NO. DATE
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                                          -----
     JP 2006006377
                     A2
                           20060112
                                         JP 2004-183644
PΙ
                                                          20040622
PRAI JP 2004-183644 20040622
     The invention relates to a medicine paper for packaging prescription
     drugs, consisting of a folded polypropylene sheet having vertical
     heat-welded portions for dividing spaces to make pouches, and horizontal
     heat-welded portions for sealing the openings of the pouches after filling
     drugs therein, wherein the horizontal heat-welding portion has pores which
     induce shear to the longitudinal direction, so that the pouches are easily
     opened.
ST
     polypropylene sheet heat sealed drug packaging material
     Medical goods
IT
     Packaging materials
        (drug packaging papers having heat-sealed portions)
IT
     Drug delivery systems
        (oral; drug packaging papers having heat-sealed portions)
IT
     9002-88-4, Polyethylene 9003-07-0, Polypropylene
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (drug packaging papers having heat-sealed portions)
REFERENCE 10
AN
     144:94489 CA
ΤI
    Absorbent cotton covered with net-shaped synthetic resin films, and its
    manufacture
IN
    Iwamoto, Masataka
PA
    Kakui Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 10 pp.
SO
    CODEN: JKXXAF
DT
    Patent
LΑ
    Japanese
CC
    63-7 (Pharmaceuticals)
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                         APPLICATION NO. DATE
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PRAI JP 2004-188244
                      20040625
     A rolled absorbent cotton sheet is cut into pieces having rectangular
     shape, the cut pieces are placed at a fixed interval, covered with
     net-shaped synthetic resin films from both sides, and the films are
     heat-sealed at film ends to give absorbent cotton covered all over the
     surface with the net-shaped synthetic resin films. The covering prevents
     loosening of the absorbent cotton before use in surgery. Absorbent cotton
     covered with polyethylene films was manufd. in a fully automated process.
ST
     absorbent cotton covering plastic film net; medical absorbent cotton
     polyethylene film net
IT
     Cotton fibers
        (absorbent; manuf. of medical absorbent cotton covered with net-shaped
        synthetic resin films)
IT
     Medical goods
        (absorbents; manuf. of medical absorbent cotton covered with net-shaped
        synthetic resin films)
IT
     Packaging materials
        (films, heat-sealable; manuf. of medical absorbent cotton covered with
        net-shaped synthetic resin films)
IT
     Absorbents
        (medical; manuf. of medical absorbent cotton covered with net-shaped
        synthetic resin films)
IT
     Plastic films
        (net-shaped; manuf. of medical absorbent cotton covered with net-shaped
        synthetic resin films)
IT
     Nets
        (plastic film; manuf. of medical absorbent cotton covered with
        net-shaped synthetic resin films)
     9002-88-4, Polyethylene 9003-07-0, Polypropylene
IT
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (manuf. of medical absorbent cotton covered with net-shaped synthetic
        resin films)
=> s artresin un-1100
             0 ARTRESIN
          1075 UN
          2451 UNS
          3525 UN
                 (UN OR UNS)
          3258 1100
T.4
             0 ARTRESIN UN-1100
                 (ARTRESIN(W)UN(W)1100)
=> s artresin un-9000
             0 ARTRESIN
          1075 UN
          2451 UNS
          3525 UN
                 (UN OR UNS)
           274 9000
L5
             0 ARTRESIN UN-9000
                 (ARTRESIN (W) UN (W) 9000)
=> s allonix m-1100
             0 ALLONIX
        567564 M
          3258 1100
             0 ALLONIX M-1100
                 (ALLONIX (W) M (W) 1100)
=> d his
     (FILE 'HOME' ENTERED AT 15:28:14 ON 31 JAN 2006)
     FILE 'REGISTRY' ENTERED AT 15:28:19 ON 31 JAN 2006
              6 S EX-841
1.1
L2
              0 S MH-7210
L3
              3 S SD-101
L4
              0 S ARTRESIN UN-1100
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PΙ

JP 2006006637

A2

20060112

JP 2004-188244

20040625

0 S ARTRESIN UN-9000 L5 0 S ALLONIX M-1100

FULL ESTIMATED COST

=> log y COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION 121.45 121.66

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE

TOTAL **ENTRY** SESSION

CA SUBSCRIBER PRICE -6.39 -6.39

STN INTERNATIONAL LOGOFF AT 15:32:27 ON 31 JAN 2006